INDEX OF PALAEOZOIC CORAL GENERA

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BRITISH MUSEUM
(NATURAL HISTORY)

INDEX OF PALAEOZOIC CORAL GENERA

by
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AND
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LONDON:
PRINTED BY ORDER OF THE TRUSTEES OF
THE BRITISH MUSEUM
1940

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Issued 26th April, 1940] [*Price Fifteen Shillings*

MADE AND PRINTED IN GREAT BRITAIN
BY JARROLD AND SONS LTD. NORWICH

PREFACE

THIS volume arose from a critical revision by Drs. W. D. Lang and S. Smith of Linnaeus's *Corallia Baltica*, involving the attempt to establish his species on a firm basis. It was deemed advisable, as an essential preliminary to any complete account of Palaeozoic corals, to publish an Index of the genotypes in advance of more detailed systematic work, and Dr. H. Dighton Thomas was called in to collaborate. Even so, it did not prove possible to complete the Index for the press before Dr. Lang's retirement from the Keepership of the Geological Department, and the final revision has largely been in the hands of Drs. Smith and Thomas. As the editor of *Antiquity* has recently remarked, "the amount of work involved in tabulating facts is infinitely greater than in the composition of continuous narrative, the liability to error far greater, and the results, when published, misleadingly disproportionate in apparent volume to the labour of preparation." I can lay no more appropriate garland at the feet of the three authors of the present work.

W. N. EDWARDS
Keeper of Geology

January, 1940

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I. INTRODUCTION

THE OLD PALAEONTOLOGY

It will, I think, be readily conceded that Palaeontology failed for many years to gain an adequate recognition of its scope and content, and in its early days was perhaps more misapplied than misunderstood. So long as the study of fossils remained only ancillary to the cognate sciences of Geology and Neontology, its true nature was obscured. On the one hand, the brilliant generalisation made early last century by William Smith, that "each bed of Chalk or Sandstone, Limestone or Clay, is marked by its own special organisms and that these can be relied upon as characteristic of such stratum wherever it is met with . . ." (Woodward, 1902, p. 12)[1], focussed geological minds on the practical use of fossils as time-indices, and tended to divert them from the study of organic remains as once-living animals and plants. Thus, the "Medals of Creation," in Mantell's phrase, were used by the stratigrapher as current coin for acquiring time-values, and fossils were pawned for dates. On the other hand, the zoologists, fired with a newly kindled enthusiasm for evolutionary phenomena, looked to the stratified rocks to provide the "missing links" they hoped to discover, and their palaeontological researches were, therefore, largely anatomical, and reflected rather the mentality of the neontologist. Huxley reconstructing the belemnite and Owen monographing the Jurassic reptiles show this attitude, respectively, to invertebrate and vertebrate palaeontology. This is not to say that much systematic palaeontology was not published. On the contrary, the output was large, but, as was inevitable in the early stages of the science, it was almost confined to catalogue work—describing, figuring, and naming forms, with only an incipient appreciation of the time-factor. After all, this was good palaeontology because it was primarily concerned with the morphology of the organisms; but the descriptive work, whether exact or crude, was always unbalanced in that it hardly correlated palaeontology with biology in general, and certainly lacked that strong sense of time-values which is palaeontology's most characteristic note. It built, however, a magnificent framework of systematics upon which subsequent research on the bionomy and evolution of organisms could be based. James Sowerby, who might be called the Linnaeus of British fossils, published the first number of his classic, the "Mineral Conchology of Great Britain," in 1812, and named with Adam-like facility the organisms as they were brought to him. His publication was the forerunner of a mass of similar work whose highest merit was accurate description —work which having attained that end awaited the leaven of a far-reaching synthesis.

THE NEW PALAEONTOLOGY

Although a new movement can seldom be attributed to one individual, I suppose that no single author, in Britain at least, did so much to introduce the new

[1] For references, see section V, Literature.

palaeontology as did the late Arthur Rowe in following up the pioneer work of Charles Barrois. His classic work on the sea-urchins of the Chalk, published in 1899, at once gave an opening (so it seemed to his generation) to the floods of pent thought which had been accumulating in the minds of many palaeontologists, but lacked a means of expression. Rowe's lead was all the more readily followed up because there existed, in the Geologists' Association, a body of enthusiasts ready to exploit his work over the widely spread expanses of accessible Chalk in south-eastern England. The main significance, however, of his publication was not at first, perhaps, wholly appreciated, and again the work tended to become the monopoly of the stratigrapher, who used it for detailed correlations of the higher Cretaceous horizons; but to the palaeontologist it emphatically declared that only by inch-by-inch methods of collecting, and by observing the evolution of separate characters of a population of allied forms through a detailed and consecutive series of beds, could any but a superficial view be gained of the evolution of a group of organisms. By this means it became possible to learn more about the origin of species than by any intensive study of Recent forms, because, while the whole present-day flora and fauna represent only one cross-section of the stream of life, and that an extreme section, palaeontology deals with an unlimited number of successive cross-sections taken throughout that stream and each representing (in so far as the material has been found) a world-wide flora and fauna. Fundamentally, then, Recent zoology and botany are seen to be included in, and to form but a small part of, palaeontology, and the full scope and nature of that science are at last appreciated. It is this study of the evolution in time of single characters in bundles of complex lineages that I referred to just now as the new palaeontology; and the work of Rowe is at least an outstanding example of the stimulus which activated this new outlook among British palaeontologists.

THE REACTION ON CORALS

It was natural that the method applied by Rowe to the Chalk urchin fauna should be taken up by those who were interested in the other great limestone formation in Britain—the Carboniferous Limestone. The lithic sub-division of these rocks had been traced by Cumberland and others in the typical sections of the Avon Gorge, and the corals and brachiopods in which the limestones abounded promised to yield results comparable to those obtained from the Chalk *Micrasters*. Accordingly, the bio-stratigraphy of the Avon section was taken up whole-heartedly by Arthur Vaughan, who first divided the series into zones and later turned his attention particularly to the palaeontology of the corals.[1] But his material proved less tractable than Rowe's. The Chalk *Micrasters* were already a specialised stock, having lived for very long periods under very uniform conditions, and their lineages could be traced continuously through many strata. On the other hand, the Carboniferous corals appeared abundantly at certain horizons, but were absent, or rare and replaced by brachiopods, at other horizons; so that successive assemblages rather than continuous lineages of corals were found—assemblages that have been shown, for instance, by Dr. Dorothy Hill (1938[2], pp. 5–14), to be examples of "facies-faunas," and often to have immigrated from a neighbouring region. It was possible, however, to trace lineages to a

[1] For his most important contribution, see Vaughan, 1905.

limited degree. It could be seen, for instance, that *Zaphrentis*-like forms gave rise to *Caninia* at higher horizons; and R. G. Carruthers (1910) worked out the lineage of *Zaphrentis delanouei*, combining the results of foot-by-foot collecting in the Calciferous Sandstone Series of Scotland with the ontological method of studying individual corals.

POLYPHYLETIC GENERA

Again, when similar work was carried out in the Carboniferous Limestone of other regions in Britain, and still more abroad, only a very general correlation could be established with the typical section of the Avon Gorge; and, as more material has been discovered, and new localities explored, the more it is seen that "genera" which have been supposed to be limited to a higher zone occur also in lower zones; and that the inter-relationships of the species have been misunderstood. More and more it has become apparent that different coral stocks have run very rapidly, and therefore within a very short vertical range, through a series of similar stages, each of which has the characters of a different genus of the old classification. In many instances, therefore, the genus as hitherto understood is now seen to be but an aggregate of those species, or terms, of different parallel lineages, which have reached the same structural grade in evolution; and so the old genera are seen to cut across the lineages. This phenomenon is becoming increasingly recognised in many other groups of animals also as their detailed lineages are being traced by means of bed-by-bed collecting—a state of affairs not likely to be even suspected from the study of a single cross-section of the stream of life, such as that presented by the Recent flora and fauna.

In corals, moreover, the work of tracing linear relationships is found to yield far less certain results than in many groups of fossils, owing to the plastic nature of the coral structure and the relatively few characters upon which the changes of structure can be rung. Essentially the coral skeleton is composed of horizontal and vertical elements—the floor-like tabulae and the shutter-like septa, respectively; and as one or other prevails, so typically two main types of coral skeleton emerge. In the Tabulate corals the septa are very subordinate, and the tabulae prominent; while prominent septa characterise the Rugose corals. Again, in the Rugose corals themselves, the two types tend to reappear, and either the septa are long and prominent and meet across the coral to form an axial structure, while the horizontal elements are much broken up; or the septa are only developed as narrow flanges running down the peripheral wall of the coral and along each strongly developed tabular floor.[1] Gradations occur between these two types of structure, and it is clear that any Rugose stock tends to pass from one to the other. It is difficult not to suppose that in the first instance some environmental or ontogenetic factor demanded this change of emphasis from a radial to a fundamental support for the soft-tissues; yet the change appears to be established in the lineages, and the weakening or disappearance of the septum accompanied by strong tabulation seems to be a trend incident to any Rugose stock, and one to which even the Hexacorals are liable. Besides these two types of structure there is a third type, in which the structural elements are composed of discrete units,

[1] This applies to the Rugose corals which have advanced beyond the radical, simple forms, like *Zaphrentis*. These radicals have strong septa and tabulae, but no dissepiments—see Hill, 1938[1], p. 23.

so that in section the skeleton appears particulate. Since the classification of fossil corals depends almost entirely upon the presence or absence, the number, and the proportions of these vertical and horizontal elements, besides upon the external characters of shape, size, and habit of the corallum, nearly all of which intergrade from form to form, it is not surprising that coral systematics are very fluid, and hitherto have hardly expressed phylogenetic relationships.

TRENDS

Now, whether or no the Rugose corals as a whole are descended from the Tabulate corals, and however the elements of the Rugose skeleton have been derived, it is a fact that the majority of the Rugosa, at least from the Silurian upwards, have well-developed, solid, lamellar septa; and such a septum is the most typical feature of the Rugose skeleton, and from the Silurian, upwards, may be regarded as normal and taken as a starting-point. In other words, by Silurian times the Rugose corals as a whole had already evolved solid, conspicuous septa. We may claim, then, with some confidence that in the Rugose corals from the Silurian upwards, and in the Hexacorals, the repeatedly recurring trend towards the reduction of the septum, either by its giving place to horizontal skeletal tissue or by "perforation," indeed took place in that direction and not conversely; and, in so far as we can bring other observed trends under the same general principle of the horizontal skeletal elements becoming more pronounced at the expense of the vertical elements, we may extend our inference to these also.

Clearly this is a most important issue; for similar seriations in different groups of corals are frequently observed, and it might be argued in many instances that there is no direct indication of the direction in which evolution has proceeded, partly because it is unusual to obtain material collected with sufficient regard for its exact horizon, but more probably because the *tempo* of evolution may be very rapid at a given period, and the earlier stages of an evolving lineage may persist along with the later stages; so that the actual specimens upon which a lineage has been recognised may have been collected from one spot and may even have been strictly contemporaneous, like the Devonian "*Cyathophyllum*" *damnoniense* and "*Cystiphyllum*" *vesiculosum* (Lang, 1938, p. 150). It is most desirable, therefore, to find any indirect method of checking the supposed direction in which an evolutionary series has progressed, and such an indication may be obtained by taking a wide view of corals as a whole. Hence it is claimed that a prior solid septum tends to become superseded by the horizontal skeleton and to break up into particulate elements.

The same considerations apply to the other main trend observable both in Rugosa and Hexacorals, by which the corallites tend towards greater compaction, and finally complete confluence. When once a simple coral stock becomes compound, the loosely knit branching individuals tend to aggregate into compact bundles until they become polygonal through mutual pressure; the boundary walls between the corallites then tend to disappear; and finally the septa themselves become perforate or particulate. This trend is repeatedly seen in coral stocks, but is especially apparent in the Hexacorals. There can be no reason for supposing that the direction of this trend is other than that indicated; but to maintain this is not to rule out the possibility of an otherwise massive corallum occasionally

becoming somewhat phaceloid distally, or of some individuals of certain species remaining simple, while others, living with them, become fasciculate or even massive. In the latter case, such coralla merely exhibit the trend, which in other instances may be seen carried through a genus or even a larger systematic unit during its phylogeny, but in this instance coming into action within the ontogeny of individuals which form a single species.

TAXONOMY

It follows from what has preceded, that anyone who contemplates writing a systematic treatise upon Palaeozoic corals is faced with certain considerations. First, he has to consider a voluminous body of published descriptions based, after Linnaeus, mainly upon the encyclopedian labours of Edwards & Haime, and carried on by an increasingly numerous band of researchers. This work provides him with a very large number of morphological units—"species," which it is his task to classify. If, then, he wishes, as presumably he will wish, to classify his species upon their phylogenetic relationships, he is embarrassed to find that the more abundant his material, and the more carefully it has been collected with due regard to its exact horizon, the more unconvincingly do the older classifications appear to express the phyletic relationships of the forms described.

For, unlike the species of the older classifications, his units are apt to fall into seriations in which the terms may lie in chronological sequence, so that he cannot but consider them to be filiations, or true lineages. Moreover, each character is seen to run a similar course with a greater or less degree of independence of the other characters, in different, parallel lineages; and so the phenomenon of trends becomes apparent.

Now, the systematist can only consider his lineages, or bundles of parallel or anastomosing lineages, as genera, and the terms of his linear series as species. But in adopting this outlook he is led into two difficulties; for where he applies names to the genera, he finds, as has already been pointed out, that the existing genera cut across his lineages, and are merely aggregates of species which belong to different lineages, but have reached the same grade of structure; and again, when he tries to diagnose what he considers to be the true genera, he will probably find that it is only possible to do so either on the basis of the genotype alone, or, if the diagnosis must be comprehensive, by expressing the relative rates of evolution of each character within the lineage—a diagnosis only practicable if expressed in a tabular form.

Suppose, however, that these difficulties have been overcome, it will be found that while in many cases the old generic names will serve for those lineages on which their respective genotypes lie, some will be sunk as synonyms. Certain of those names, however, which are lost to taxonomy because they have become synonyms, so usefully express the grade of structure which they indicate that their total loss would be deplorable. But it has been found possible to turn such names to morphological use in order to connote certain types of structure. They have been termed genomorphs; and, written within braces, the genomorphic names are no longer in danger of being taken up again into taxonomy, but have been usefully employed as morphological terms added to the orthodox scientific name (see Smith & Lang, 1930, p. 179, and Lang, 1938, p. 157).

SEPTAL INSERTION

Two other lines of research have yet to be considered, which throw considerable light upon the phylogeny of Palaeozoic corals, and so are useful in framing a classification. Carruthers' ontogenetic work on the lineage of *Zaphrentis delanouei* has already been mentioned; but he had previously demonstrated the order of insertion of the protosepta and metasepta in the same genus, and supposed that this order was original in all the Rugosa (1906, p. 361). The protosepta were shown to be inserted, a pair at a time, in three pairs which attained the same length before a considerable, but limited, number of metasepta were added in linear series in four of the six spaces lying between the protosepta. The insertion of the metasepta was thus seen to emphasise the supposed bilateral symmetry of the soft parts by impressing it upon the septal skeleton. When the tale of metasepta was complete, a cycle of minor septa appeared, one between each major septum and the next, nearly simultaneously, but not quite, because the insertion started on the part where the counter-septum lay and rapidly ran round both sides of the coral to the cardinal septum.

To anyone familiar with the cyclic appearance of the septal series in Recent corals, the method of insertion of the major septa seen in the Carboniferous forms commonly called *Zaphrentis* appears to alienate completely the Hexacorals from the Rugosa; and Carruthers thought, or at least implied (1906, pp. 360–2), that the pause in the insertion of the septa of *Zaphrentis* during which the six protosepta attained an approximately equal length, and before the metasepta were inserted, indicated the point of divergence of the two groups. It is possible, however, that this evening up of the protosepta of *Zaphrentis* is not general, and therefore is of no more than particular significance. But the method of insertion of the minor septa shows how any septal cycle can have arisen by further delay in the appearance of the earlier terms of a series consisting of consecutively inserted pairs, until all the septa of the series appear simultaneously. The principle of a lag, or delay, in the appearance of definite septa during ontogeny was invoked by Carruthers to account for the anomalies of the septal insertion in a *Zaphrentis*-like form which he named *Cryptophyllum* (1919, p. 435), but he did not anticipate the application of this principle to all the minor septa of most Rugose corals. Faurot, however, in 1909, and Schindewolf, in 1931, showed in *Cyathaxonia* and *Petraia*, respectively, that the series representing the metasepta in the ontogeny of *Zaphrentis* are inserted in pairs, one of which remains short and is from the first a minor septum, and the other becomes a normal metaseptum. Thus these two genera show what is probably the true relation of the minor and metasepta in the more usual simple Rugose corals, namely, a complete suppression of the minor septa until a late stage in ontogeny.

Other variations from the type of septal insertion shown by *Zaphrentis* have been observed, but need further investigation; nor has that of the important genus *Columnaria* yet been elucidated. Again, occasionally in pre-Permian, and frequently in Permian, Rugosa a second cycle of septa occurs; and Douglas has shown in the Permian genus *Iranophyllum* that even a third cycle appears—facts which point to the derivation of Aporose from Rugose corals by a suppression or condensation of the earlier septal insertions. Enough, however, has been said to show the value of the ontogenetic method as an aid to taxonomy by indicating at least two divergent groups in the simple Rugose corals.

SEPTAL STRUCTURE

The other line of research just now touched on was that originated by Pratz, in 1882, and carried on by Dr. Maria Ogilvie,[1] who published an important paper, in 1897, on the microscopic structure of the Madreporarian skeleton. Pratz and Ogilvie showed that the bundles of fibrous crystals of which the septum is composed are aggregated into spines, from the axes of which the bundles radiate. These spines, called by Pratz trabeculae, are either remote, and the septum is then formed of a row of discrete spines; or, more often, they are contiguous and form the familiar plate-like structure. Miss Ogilvie described the minute septal structure of a number of Recent corals as well as that of some fossil forms, but her work has been largely disregarded, partly, no doubt, because it did not have any immediate effect upon taxonomy. It is remarkable that Bernard, who subjected her work to devastating criticism (1897), has been, so far as I know, the only researcher on Recent corals to follow, even unconsciously, Miss Ogilvie's lead; and in his masterly analysis of the skeletal structure in *Goniopora* and *Porites* has vindicated Pratz's and Miss Ogilvie's research by demonstrating the trabecula as the septal unit.

Miss Ogilvie's paper plainly suggested a promising line of investigation for the palaeontologist; but it was not until a few years ago that it was seriously followed up, and then it immediately yielded illuminating results. Dr. Dorothy Hill's penetrating research on the Acanthocyclid septum, published in 1936, not only corroborated Miss Ogilvie's work on the trabecula, but also demonstrated how the septal structure of a family of Palaeozoic corals indicated that family's evolution, and made possible a truly phylogenetic taxonomy.

TERMINOLOGY

The morphology of the coral skeleton was described in great detail before the middle of last century by Edwards & Haime, who elaborated for it what, in their time, was an adequate terminology. They largely misunderstood, however, the nature and origin of the madreporarian skeleton, so that subsequent writers have both modified the meaning of many of their terms, and have invented new ones. There has consequently arisen some overlap as well as confusion in the terminology of the coral skeleton; and to remedy this uncertainty several workers in England collaborated in reviewing the whole subject so as to produce an agreed statement. As a result of these consultations a revised terminology was published by Miss Hill in 1935, and is taken as a standard to be followed in the work of which this volume is the introduction. It may be that, as the work proceeds, it will be found necessary to modify the 1935 terminology; but even if it is subsequently modified it will serve as a starting-point and ensure that this systematic revision of the Palaeozoic corals will not be launched in terminological confusion.

NOMENCLATURE

Linnaeus named a few species of Palaeozoic corals in the tenth edition of his Systema Naturae. Since that work forms the starting-point of all Zoological nomenclature, it follows that these coral names are the most important of all,

[1] Later Dame Maria Ogilvie Gordon.

and the determination of the coral species which they connote is the first task for the systematist of Palaeozoic corals. To elucidate these species, however, it is necessary to consult a "pre-linnean" work by Linnaeus, namely, the "Corallia Baltica," published in 1745. About twenty species of corals are there described, and it is most important to identify as far as possible, not only those to which binominal names were subsequently given by Linnaeus, but also those other forms from the Swedish Silurian rocks which are figured in that work. Unfortunately, all this Linnaean material is lost; but there still remains in Stockholm a very old collection of Swedish Silurian corals made by Hisinger and described by him in 1837–41, and almost certainly including specimens described by Wahlenberg in 1821 [1819]. The identification of these specimens therefore becomes, in turn, a starting-point for the study of Palaeozoic corals. Through the kindness of Professor Eric Stensiö, Dr. Stanley Smith and I have been able to make a prolonged examination of this material, and, with the help it has afforded, to agree on the identity of Linnaeus's species upon which the nomenclature of the Palaeozoic corals is founded.

Even such a limited investigation as is involved in examining the earliest described Silurian corals necessarily forces the investigator to research into a large number of genera which have been described both from the Silurian and from other Palaeozoic formations; and any work dealing with Palaeozoic corals must take account of every generic name that has been used to include any Palaeozoic coral species. The interpretation of a genus is absolutely conditioned by the genotype species; and it is the duty, in many instances the laborious duty, of the investigator to decide which of several genosyntypes is to be considered the genolectotype, to elucidate the genotype, and to determine the validity, or otherwise, and the status of each genus.

Having established, as we have supposed, a satisfactory phylogenetic classification, the systematist must next apply a nomenclature, which must not only be logical but also legal; in other words, it has to obey the Code of the International Zoological Congress. To apply this will prove no easy task, for the Code is imperfectly conceived and inadequately expressed. But, suppose that the difficulties inherent in the Code have been successfully surmounted, it is still the generic names that must first be determined, and for this it is necessary to have a list of all the genera of Palaeozoic corals which have hitherto been published, together with their genotypes, whether already designated, or here first determined. Accordingly this volume contains such a list: it is the nomenclatorial foundation of all that follows.

With due regard to the considerations detailed above, and after more than twenty years of research upon the Palaeozoic corals, we enter with some diffidence upon a formidable task. But, after all, the play's the thing: the stage is set, the curtain is rung up. The genera with their attendant genotypes will enter, make their bow, and retiring to collect each its appropriate species, will reappear with them to unfold the evolutionary plot as formation succeeds formation until, in the Permian act, the curtain falls upon an unfinished drama. A coral fauna is there left in the midst of its evolution. Its future is an enigma, and we have no present knowledge as to whether complete extinction overtook it, or whether it underwent a rapid and radical reorganisation, to reappear in Triassic times as a fauna of typical Hexacorals.

W. D. Lang

II. ACKNOWLEDGMENTS

In the compilation of this Index we have received help from a number of people in the elucidation of such difficult problems as those of nomenclature and priority, and the actual dates of publication of various works. In addition, for the detailed investigation of the structure of numerous genera, we have had the loan of material (including holotypes) from many individuals and institutions. We wish to acknowledge this valuable assistance, particularly from the following: Dr. R. S. Bassler, of the United States National Museum, Washington; Mr. A. G. Brighton and Mr. H. Woods, of the Sedgwick Museum, Cambridge; the late Dr. J. M. Clarke, Dr. Rudolf Ruedemann, and Dr. Alvin G. Whitney, of the New York State Museum; Prof. G. E. Condra and Dr. W. R. Johnson, of the Nebraska Geological Survey; Dr. Carey Croneis, of the Walker Museum of Paleontology, University of Chicago; Prof. G. Delépine, of the Université de Lille; Prof. W. O. Dietrich, of the Geologisch-Paläontologisches Institut und Museum der Universität, Berlin; Dr. G. M. Ehlers, of the University of Michigan, Ann Arbor; Dr. C. L. Fenton, of Washington; the late Dr. A. F. Foerste, of Dayton University; Dr. A. Heintz, of the Paleontologisk Museum, Oslö; Dr. F. Heritsch, of the Geologisches Institut der Universität, Graz; Dr. D. Hill, of the University of Queensland, Brisbane; Mr. O. J. R. Howarth, of the British Association for the Advancement of Science, London; Dr. K. P. Oakley, of the British Museum (Natural History); Dr. J. Piveteau, of the École Nationale Supérieure des Mines, Paris; Dr. F. Prantl, of the Národni Museum, Prague; Prof. O. H. Schindewolf, of the Preussische Geologische Landesanstalt, Berlin; Dr. R. A. Smith, of the Department of Conservation, Lansing, Michigan; Prof. E. O. Stensiö, of the Riksmuseets Paleozoologiska Avdelning, Stockholm; Dr. C. J. Stubblefield, of H.M. Geological Survey, London; Prof. T. A. Tilmann, of the Geologisch-Paläontologisches Institut und Museum der Universität, Bonn; Mr. A. C. Townsend, of the British Museum (Natural History); Dr. T. Wayland Vaughan, of the Scripps Institution of Oceanography, La Jolla, California; and Dr. John W. Wells, of the State University of Ohio, Columbus, Ohio. Dr. C. Davies Sherborn kindly gave us at various times full access to his unpublished manuscripts. We have also to record the help received in a variety of ways, notably in the checking of the literature, from Mr. R. H. Spires, of the British Museum (Natural History), and in the preparation of the manuscripts, from Mrs. I. M. Cook and Miss E. M. L. Thomas.

III. GENERA

EXPLANATORY NOTE

This Index includes not only the genera and sub-genera of Palaeozoic corals, but also those of other groups to which Palaeozoic corals have at various times been referred. We exclude, however, those genera, such as many polyzoa and stromatoporoids, which were originally described as corals, but whose true zoological position has now been universally recognised. A few genera still remain, nevertheless, which are only doubtfully corals, and these are included.

A distinction is drawn between those generic names for Palaeozoic corals on the one hand, which were properly founded according to the Rules of Zoological Nomenclature, and which are neither pre-occupied, nor absolute synonyms of earlier genera, nor certainly invalid for other reasons which we specifically state, and those, on the other hand, which are invalid for any of the reasons just given. Names in the first category are printed in Clarendon type where they are those of Palaeozoic corals, e.g., **ACERVULARIA,** but, if they are those of genera of other groups to which Palaeozoic corals have been referred, the names are printed in large roman capitals prefaced by an asterisk, e.g., *CARYOPHYLLIA and *COSCINOPORA. Italics are used for names in the second category, e.g., *POLYPHYLLUM*, i.e., in those cases where there can be no dispute as to their invalidity. It must not, however, be inferred that we recognise that all those names printed in clarendon type are separate and distinct genera. In many instances we and others consider that the genotype of a later genus is congeneric with that of an earlier, so that the genera are synonymous. But the generic identity of species, and the limits to be accorded to genera, are often matters of personal opinion, and generic synonymies based on these grounds may thus not be universally accepted. Again, all the characters of the holotype of a type-species have often not been fully ascertained, so that the identity of two or more genera cannot be definitely established at present. Our own opinions and comments are included under "Remarks." We should add, however, that in attempting to arrive at an understanding of what an author meant by a given genus, we exclude the synonymy he gives, both of the generic name and of the genotype, as otherwise utter confusion is the only result.

The authorship, date, and place of citation for each genus is specified (see under "Literature" for the full references). Where the genus was monotypic at its foundation, or where the genoholotype is certain either because of tautonymy or because it was originally designated, this fact is stated. In other cases, where a valid genolectotype has already been chosen, that species is given, together with the reference to the original selection, but the genosyntypes are listed only where a difficult point is raised and their full citation is necessary for its clarification. The genosyntypes are usually quoted in full where it is necessary to choose a genolectotype. In all cases the horizon and original locality of the genotypes are stated as precisely as possible in current terms. Our own interpretation of an author's originally obscure statement is given in square brackets, e.g., [Silurian], loose on the shore: Isle of Gotland, Sweden.

Emendation of the original spelling of generic names is made where an author's original orthography is not in accordance with its etymological derivation, or is at variance with the transliteration of Greek names given in the International Rules of Zoological Nomenclature. Many scientific authors seem to be unaware of the fact that, in the Classical languages, there were definite rules for the derivation of words formed from others.

Obvious misprints and mistakes in the spelling of generic names are scattered in profusion throughout palaeontological literature. Such mistakes are included in the list below only when they occur in titles, or were consistently employed by authors, or for other reasons are liable to cause confusion. Throughout, we have endeavoured to apply the International Rules of Zoological Nomenclature, and to interpret the various Recommendations and Opinions fairly. But it is proper to remark that this is no easy task, for the Rules themselves are not always happily framed, while the Opinions are often difficult to understand, and even meaningless or contradictory.

ACANTHOCHONIUM Ludwig, 1865, pp. 142, 145—see R. Ludwig, 1865–1866, under "Literature."

ACANTHOCOENIUM Duncan, 1884[2], p. 176, errore pro *Acanthoconium* Lindström, which is itself an error for *Acanthochonium* Ludwig, 1865.

ACANTHOCONIUM Lindström, 1884, p. 191, errore pro *Acanthochonium* Ludwig, 1865.

ACANTHOCYCLUS Dybowski, 1873[1], pp. 333, 359—pre-occupied by *Acanthocyclus* Lucas, 1844, p. 29, for a Recent crustacean, and re-named *Rhabdocyclus* by Lang & Smith, 1939, p. 152.

GENOLECTOTYPE (see Lang & Smith, 1927, p. 450):—*Palaeocyclus fletcheri* Edwards & Haime, 1851, p. 205; 1855, p. 248, pl. lvii, figs. 3, 3a-f. Silurian, Wenlockian: Dudley, Worcestershire, England.

ACANTHODES Dybowski, 1873[1], pp. 334, 364—pre-occupied by *Acanthodes* Agassiz, 1833, p. 19, for a Permian fish, and by *Acanthodes* de Haan, 1833, p. 20, for a Recent crustacean, and re-named *Spiniferina* by Penecke, 1894, p. 592.

GENOLECTOTYPE (see Sherzer, 1891, p. 278):—*A. cylindricus* Dybowski, 1873[1], p. 364, pl. i, figs. 11a-c. [Silurian, Salopian]: Lauberg and Island of Karlsö, Gotland, Sweden.

REMARKS. We consider *A. cylindricus* to be a species of *Tryplasma* Lonsdale. See *Spiniferina* Penecke.

ACANTHOLITHUS Lindström, 1899, p. 112—pre-occupied by *Acantholithus* Stimpson, 1858, p. 231, for a crustacean.

GENOSYNTYPES:—

(1) *A. lateseptatus* Lindström, 1899, p. 113, pl. xi, figs. 23–30. ?Lower Silurian: Visby, Isle of Gotland, Sweden (one specimen is from the drift at Kopparsvik, and another from the shore at Norderstrand).

(2) *Heliolites asteriscus* C. F. Römer, 1883, p. 505=*H. inordinata* Schmidt, 1858, p. 226. Ordovician: Borkholm, Lyckholm, and other localities in Esthonia.

GENOLECTOTYPE (here chosen):—*A. lateseptatus* Lindström.

REMARKS. We here re-name this genus *Acidolites*, q.v.

ACANTHOPHYLLUM Dybowski, 1873[1], p. 339, and 1874, p. 493.

GENOSYNTYPES:—

(1) *Cyathophyllum heterophyllum* Edwards & Haime, 1851, p. 367, pl. x, figs. 1, 1 a, b. Middle Devonian: Eifel district, Germany.

(2) *A. linnarssonii* Dybowski, 1873[1], p. 493, pl. v, figs. 1, 1a. Silurian: St. Johannis, Island of Oesel, Esthonia.

GENOLECTOTYPE (see Schlüter, 1889, p. 296):—*C. heterophyllum* Edwards & Haime.

REMARKS. Species congeneric with *C. heterophyllum* are very common in the Middle Devonian. Wedekind and others have founded a number of genera upon species congeneric with or closely allied to *Acanthophyllum*, e.g., *Mesophylloides* Wedekind and *Rhopalophyllum* Wedekind.

ACERVULARIA Schweigger, 1819, table vi.

GENOHOLOTYPE (by monotypy):—*A. baltica* Schweigger, 1819, table vi=*Madrepora ananas* Linnaeus, 1758, p. 797=*Madrepora composita* . . . *centroconcava* Linnaeus, 1745, p. 21, figs. ix, n. 2, and 1749, p. 92, pl. iv, figs. ix, n. 2. [Upper Silurian]: Isle of Gotland, Sweden.

REMARKS. Edwards & Haime, 1850, p. lxx, unwarrantably cited *A. roemeri* Haime, 1850, p. 162. See Smith & Lang, 1931, p. 85; and also *Arachnium* Keyserling, *Diplophyllum* Hall, *Favastraea* de Blainville, and *Rhabdophyllum* Wedekind.

ACIDOLITES (ἀκίς, a point) nom. nov. for *Acantholithus* Lindström, 1899, p. 112, non *Acantholithus* Stimpson, 1858, p. 231.

GENOHOLOTYPE (genolectotype of *Acantholithus* Lindström, q.v.):—*Acantholithus lateseptatus* Lindström, 1899, p. 113, pl. xi, figs. 23–30. ?Lower Silurian: Visby, Isle of Gotland, Sweden (one specimen is from the drift at Kopparsvik, and another from the shore at Norderstrand).

ACROCYATHUS d'Orbigny, 1849[2], p. 12.

GENOHOLOTYPE (by monotypy):—*G.* [sic] *floriformis* d'Orbigny. Carboniferous: [Indiana, United States—see d'Orbigny, 1850, p. 160.]

REMARKS. This is considered by Edwards & Haime, 1851, p. 433, to be *Axinura canadensis* Castlenau, 1843, p. 49, pl. xxiv, fig. 4. Drift ex Devonian: shore of Lake Saint Clair, U.S.A. See also *Axinura* Castelnau.

ACROPHYLLUM Thomson & Nicholson, 1876[1], p. 455.

GENOHOLOTYPE (by authors' original designation):—*Clisiophyllum oneidaense* Billings, 1859[1], p. 128. Middle Devonian, Corniferous [Onondaga] Limestone: Rama's Farm, and other localities, Haldimand County, Canada West [Ontario].

REMARKS. The species included by Thomson in *Acrophyllum* in 1883, p. 421, are not congeneric with *Clisiophyllum oneidaense*.

*ACROPORA Oken, 1815, p. 65, a hexacoral (non *Acropora* Reuss, 1869, p. 277, a polyzoan).

GENOLECTOTYPE (see Verrill, 1902[1], p. 164, and 1902[2], p. 208):—*Millepora muricata* Linnaeus, 1758, p. 792 (in which Oken includes *Madrepora rosacea* Esper, 1789, p. 115). Recent.

REMARKS. See *Acroporites* Krüger.

ACROPORITES Krüger, 1823, p. 265=*Acropora* Oken, 1815.

REMARKS. Krüger uses this form of the name for Palaeozoic tabulate corals which he refers to as *Acroporites damicornis* and *A. muricata*. *Acroporites*, *Madreporites*, *Milleporites*, etc., are not to be regarded as generic names, but merely names indicating fossil forms of *Acropora*, *Madrepora*, *Millepora*, etc.

ACTINOCYATHUS d'Orbigny, 1849[2], p. 12.

GENOHOLOTYPE (by monotypy):—*Cyathophyllum crenulare* Phillips, 1836, p. 202, pl. ii, figs. 27, 28. Carboniferous Limestone: Clitheroe, Lancashire; Mendip Hills and Bristol, Somersetshire; and Derbyshire, England.

REMARKS. Phillips' figured syntype of *C. crenulare* (British Museum specimen R. 87) is *Lonsdaleia floriformis* (Martin)—see Smith, 1916[1], p. 257. The genus is a synonym of *Stylidophyllum* de Fromentel, i.e., of *Lonsdaleia* McCoy.

ACTINOCYSTIS Lindström, 1882[2], p. 21.

GENOHOLOTYPE (by monotypy):—*Cystiphyllum grayi* Edwards & Haime, 1851, p. 465, and 1855, p. 297, pl. lxxii, fig. 3 [? non fig. 3a]. Silurian, Wenlockian: Dudley, Worcestershire, England.

REMARKS. *Cystiphyllum grayi* Edwards & Haime is conspecific with *Spongophylloides schumanni* Meyer, 1881, p. 109, pl. v, fig. 12, the genotype of *Spongophylloides* Meyer, and therefore *Actinocystis* is a synonym of *Spongophylloides*. Lindström was aware of this, but considered the name *Spongophylloides* to be framed contrary to the Rules of Zoological Nomenclature, which is not the case.

*ACTINOPHYLLUM Phillips, 1848, p. 386.

GENOHOLOTYPE (by monotypy):—*A. plicatum* Phillips, 1848, p. 386, pl. xxx, figs. 4, 4a. Silurian, Downtonian: Perton, near Stoke Edith, Woolhope District, Herefordshire, England.

REMARKS. Described as a plant by Phillips, and as a coral by Brodie, 1871, p. 259, but probably not the former, and certainly not the latter. See Straw, 1926, pp. 136–138.

AENIGMATOPHYLLUM as *Enygmophyllum* [sic] Fomichev, 1931, pp. 42, 71.

GENOHOLOTYPE (by monotypy):—*E.* [sic] *taidonensis* Fomichev, 1931, pp. 42, 71, pl. ii, figs. 8a, b. Lower Carboniferous: right shore of Taidon River, Kusnetzk basin, Russia.

*AGARICIA Lamarck, 1801, p. 373, a hexacoral.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. xlix):—*Madrepora undata* Ellis & Solander, 1786, p. 157, pl. xl. Recent.

REMARKS. *Agaricia* has been used by Goldfuss and others for Palaeozoic corals.

AGASSIZIA Thomson, 1883, p. 497—pre-occupied by *Agassisia* [sic] Valenciennes in Dupetit-Thouars, 1846, pl. i (emended to *Agassizia* by Agassiz & Desor, 1847, p. 20), for an echinoid, and by *Agassizia* Behr, 1870, p. 23, for a lepidopteron.

GENOHOLOTYPE (by monotypy):—*A. vesicularia* Thomson, 1883, p. 498, pl. iv, fig. 9. Lower Carboniferous: Charleston, Fifeshire, Scotland.

REMARKS. Miss D. Hill has informed us that she considers *A. vesicularia* to be a species of *Carcinophyllum* Thomson & Nicholson.

AGONOPHYLLUM Simpson, 1900, p. 203—nomen nudum.

ALBERTIA Thomson, 1878, p. 165—pre-occupied by *Albertia* Dujardin, 1838, p. 175, for a rotifer, and by *Albertia* Rondani, 1843, p. 37, for a dipterous insect.

GENOHOLOTYPE (by author's original designation, p. 162):—*A. victoria-regia* Thomson, 1878, p. 168, pl. i, figs. 1, 1a, pl. ii, fig. 1. Lower Carboniferous, Viséan: Langside Quarry, Beith, Ayrshire, Scotland.

REMARKS. Hill, 1938[2], p. 65, includes the genus in *Dibunophyllum* Thomson & Nicholson.

*ALCYONIUM Linnaeus, 1758, p. 803, a Recent alcyonarian coral.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. lxxvii):—*A. digitatum* Linnaeus, 1758, p. 803. Recent: Europe.

REMARKS. Some Palaeozoic corals have been included in this genus by early writers.

**ALECTO* Lamouroux, 1821, p. 84, a polyzoan—pre-occupied by *Alecto* Leach, 1815, p. 61, for a crinoid, and re-named *Stomatopora* by Bronn, 1825, p. 27.

GENOHOLOTYPE (by monotypy):—*A. dichotoma* Lamouroux, 1821, p. 84, pl. lxxxi, figs. 12–14. Jurassic: Caen, France.

REMARKS. The name *Alecto* has been used for species of *Aulopora* Goldfuss.

ALLEYNIA Počta, 1902, p. iv, and Addenda et Corrigenda, to replace *Nicholsonia* Počta, q.v.

REMARKS. See *Syringaxon* Lindström, of which *Alleynia* is a synonym.

ALLOTROPIOPHYLLUM Grabau, 1928, p. 130.

GENOHOLOTYPE (by author's original designation):—*A. sinense* Grabau, 1928, p. 130, pl. v, figs. 1–6c=*Amplexus spinosus* var. *sinensis* Grabau, 1922, p. 64, pl. i, figs. 22–23. Lower Permian, Chihsia Limestone: Chihsia Shan, Nanking Region, Kiangsu, China.

REMARKS. See *Paralleynia* Soshkina.

ALVEOLITES Lamarck, 1801, p. 375.

GENOLECTOTYPE (see Nicholson & Etheridge, 1877, p. 356):—*A. suborbicularis* Lamarck, 1801, p. 376. Upper Devonian, Frasnian: near Düsseldorf, Germany.

REMARKS. Edwards & Haime, 1850, pp. lx, lxi, give *Calamopora spongites* partim Goldfuss, 1829, p. 80, pl. xxviii, figs. 1a-h, as the genotype, but explain, 1853, p. 219, that they consider that species to be conspecific with *A. suborbicularis* Lamarck. Nicholson & Etheridge, 1877, p. 356, expressly mention *A. suborbicularis* as the type-species of *Alveolites*.

ALYSSITES Fischer von Waldheim, 1813, p. 387—see *Halysites*.

AMPLEXI-CANINIA A. Vaughan, 1906, p. 296—nomen nudum.

AMPLEXICARINIA as *Amplexocarinia* [sic] Soshkina, 1928, p. 379, as sub-genus of *Amplexus*.

GENOHOLOTYPE (by monotypy):—*A. muralis* Soshkina, p. 379, text-figs. 19a-f on p. 380. Lower Permian: River Shchughor, Northern Ural Mountains, U.S.S.R.

*AMPLEXIPORA as *Amplexopora* [sic] Ulrich, 1882, p. 154, a Palaeozoic polyzoan.

GENOHOLOTYPE (by author's original designation):—*A. cingulata* Ulrich, 1882, p. 254, pl. xi, figs. 5, 5a, b. Ordovician, Cincinnati Group: McKinney's Station, Kentucky, U.S.A.

REMARKS. Etheridge & Foord, 1884[2], p. 178, pl. vi, figs. 3, 3a-c, referred to this genus a Devonian coral which was later made the genotype of *Litophyllum* Etheridge, q.v.

AMPLEXI-ZAPHRENTIS A. Vaughan, 1906, p. 315, as sub-genus of *Zaphrentis*.

GENOSYNTYPES:—

(1) *Zaphrentis bowerbanki* Edwards & Haime, Thomson, 1883, p. 368, pl. vi, fig. 3. Lower Carboniferous, [Viséan, *Dibunophyllum* zone]: Shields, East Kilbride, Lanarkshire, Scotland (non *Z. bowerbanki* Edwards & Haime, 1851, p. 338, and 1852, p. 170, pl. xxxiv, figs. 4, 4a. Lower Carboniferous: Oswestry, Shropshire, and Frome, Somerset, England, and Ireland; but near *Z. enniskilleni* Edwards & Haime, 1851, p. 334, and 1852, p. 170, pl. xxxiv, fig. 1. Lower Carboniferous: Loughgill, County Sligo, Ireland).

(2) *Z. edwardsiana* de Koninck, Thomson, 1883, p. 367, pl. vi, fig. 9. Lower Carboniferous, [Viséan, *Dibunophyllum* zone]: Bathgate, Linlithgowshire, Scotland (non *Z. edwardsiana* de Koninck, 1872, p. 83, pl. vii, figs. 4, 4a, b. Lower Carboniferous, Tournaisian: Tournai, Belgium; but near *Z. enniskilleni* Edwards & Haime).

(3) *Z. guerangeri* Edwards & Haime, Thomson, 1883, p. 367, pl. vi, fig. 13. Lower Carboniferous, [Viséan, *Dibunophyllum* zone]: Auchenskeoch, Dalry, Ayrshire, Scotland (non *Z. guerangeri* Edwards & Haime, 1851, p. 336, pl. v, figs. 9, 9a. Lower Carboniferous, Tournaisian: Juigné, near Sablé, Sarthe, France).

GENOLECTOTYPE (here chosen):—*Z. bowerbanki* Thomson non Edwards & Haime.

REMARKS. Carruthers, 1908, p. 158, considers *Amplexi-Zaphrentis* synonymous with *Caninia* Michelin. Vaughan, however, refers to Thomson's figures

mentioned above as illustrating various stages in the ontogeny of his new sub-genus, and thus the three species represented by them are the genosyntypes. Vaughan also figures (pl. xxix, fig. 7) a specimen as "*Amplexi-Zaphrentis*, subgen. nov., variant convergent on *Zaphrentis* aff. *Enniskilleni*," from the Lower Carboniferous, *Cyathaxonia* beds, *Dibunophyllum* zone, of Rush, County Dublin, Ireland. By choosing *Z. bowerbanki* Thomson as genolectotype, we choose a species closely resembling the latter figure. *Amplexi-Zaphrentis* is congeneric with *Zaphrentoides* Stuckenberg.

AMPLEXOCARINIA Soshkina—see *Amplexicarinia* Soshkina.

AMPLEXUS Sowerby, 1814, p. 165.
GENOHOLOTYPE (by monotypy):—*A. coralloides* Sowerby, 1814, p. 165, pl. lxxii, figs. 1, 2 [3, 4, 5]. Lower Carboniferous: Black Rock, Limerick, Ireland.
REMARKS. Sowerby described *Amplexus* as a cephalopod.

AMYGDALOPHYLLUM Dun & Benson, 1920, p. 339.
GENOHOLOTYPE (by monotypy):—*A. etheridgei* Dun & Benson, 1920, p. 339, pl. xviii, figs. 2–6 [non fig. 1, which is *Zaphrentis sumphuens* Etheridge, 1891, p. 16, pl. xi, figs. 4–6—see Benson & Smith, 1923, p. 161]. Lower Carboniferous, Burindi Series [=Viséan]: Babbinboon, New South Wales, Australia.
REMARKS. See *Echigophyllum* Yabe & Hayasaka.

ANGOPORA Jones, 1936[1], p. 18—proposed for *Laminopora* Jones, q.v.
GENOHOLOTYPE (by author's original designation):—*A. hisingeri* Jones, 1936[1], p. 18, pl. ii, figs. 4–7, pl. iii, figs. 1, 2. Silurian, Övre Visby Märgelsten (=Lower Wenlock): Högklint, south of Visby, Isle of Gotland, Sweden= *Laminopora hisingeri* Jones, 1930, p. 35. Silurian, Wenlockian: Isle of Gotland, Sweden, and Shropshire, England.
REMARKS. *A. hisingeri* Jones is *Agaricia swinderniana* Goldfuss, 1829, p. 109, pl. xxxviii, figs. 3a, b, the genotype of *Thecia* Edwards & Haime, q.v.

ANISOPHYLLUM Edwards & Haime, 1850, p. lxvi.
GENOHOLOTYPE (by authors' original designation):—*A. agassizi* Edwards & Haime, 1850, p. lxvi, described and figured by Edwards & Haime, 1851, p. 351, pl. i, figs. 2, 2a. Devonian: Perry County, Tennessee, U.S.A.

ANORYGMAPHYLLUM Ludwig, 1865, pp. 143, 156–160—see R. Ludwig, 1865–1866, under "Literature."

ANTHOLITES Davis, 1887, explanation of pl. lxxviii.
GENOHOLOTYPE (by monotypy):—*A. speciosus* Davis, 1887, explanation of pl. lxxviii, figs. 1, 2. Upper Devonian: near Louisville, Kentucky, U.S.A.

*ANTHOPHYLLUM Schweigger, 1819, table vi, a Recent hexacoral.
GENOHOLOTYPE (by absolute tautonymy):—*A. cyathus* Schweigger, 1819, table vi=*Madrepora anthophyllum* Esper, 1791, p. 143, pl. xxiv. Recent: Madras, India.

REMARKS. Schweigger, 1819, table vi, states "Spec. A. cyathus (Madr. Anthophyllum Esp. t. 24. Madrep.)." He thus clearly refers to Esper's species, but substitutes *cyathus* for the proper trivial name. This action is quite invalid, so that *Anthophyllum anthophyllum* (Esper) is the genoholotype by tautonymy of *Anthophyllum*. Some Rugose corals were referred to the genus by early writers.

ANTOPORA de Koninck, 1872, p. 118—nomen nudum. The name is referred to Wahlenberg, 1821 [1819], p. 99. But, as pointed out by Lindström, 1883[3], p. 5, *Antopora* is not mentioned there. Nor can it be found elsewhere.

APHROPHYLLUM Smith, 1920, pp. 51, 53.

GENOHOLOTYPE (by monotypy):—*A. hallense* Smith, 1920, p. 51, pl. ii, figs. 1–5. Lower Carboniferous, Burindi Series [=Viséan]: Parish of Hall, New South Wales, Australia.

APHYLLOSTYLUS Whiteaves, 1904, p. 113.

GENOHOLOTYPE (by monotypy):—*A. gracilis* Whiteaves, 1904, p. 114, figured Whiteaves, 1906, p. 279, pl. xxiv, figs. 1, 1a. Upper Silurian [Niagara Formation]: Stonewall, 31 miles west of East Selkirk, Manitoba, Canada.

APHYLLUM Soshkina, 1937, pp. 45, 94—pre-occupied by *Aphylum* [sic] Bergroth, 1906, p. 604, for a hemipterous insect.

GENOHOLOTYPE (by author's original designation):—*A. sociale* Soshkina, 1937, pp. 45, 94, pl. vii, figs. 1–4. Silurian, Upper Wenlock: eastern slope of the Urals, right bank of the River Vya, near Elkino, U.S.S.R.

REMARKS. Prantl, 1939[2], p. 4, considers the genus synonymous with *Microplasma* Dybowski.

APOLYTHOPHYLLUM Walther, 1928, p. 135.

GENOSYNTYPES:—

(1) *A. gracile* Walther, 1928, pp. 138, 139, text-fig. 27 on p. 139. Lower Upper Devonian: Walheim, about 10 km. south of Stolberg, Rhenish Prussia, Germany.

(2) *A. cylindricum* Walther, 1928, pp. 138, 140, text-figs. 28 and 29 on p. 140. Lower Upper Devonian: Walheim, about 10 km. south of Stolberg, Rhenish Prussia, Germany.

(3) *A. brevissimum* Walther, 1928, pp. 138, 142, text-fig. 30 on p. 142. Grund, Harz Mountains, Germany.

(4) *A. rectum* Walther, 1928, pp. 138, 143. Lower Upper Devonian: Grund, Harz Mountains, Germany.

(5) *A. tenuissimum* Walther, 1928, pp. 138, 143, text-figs. 31 and 32 on p. 144. Lower Upper Devonian: Grund, Harz Mountains, Germany.

(6) *A. normale* Walther, 1928, p. 144, text-figs. 33 and 34 on p. 145. Lower Upper Devonian: Grund, Harz Mountains, Germany.

GENOLECTOTYPE (here chosen):—*A. normale* Walther.

REMARKS. The genus is a synonym of *Tabulophyllum* Fenton & Fenton in our opinion.

ARACHNASTRAEA Yabe & Hayasaka, 1916, p. 67.

GENOHOLOTYPE (by authors' original designation):—*A. manchurica* Yabe & Hayasaka, 1916, p. 69. Uppermost Carboniferous, Schwagerina stage: Niu-hsin-tai, east of Hon-kei-ko (Ponhsipu), South Manchuria.

ARACHNELASMA as *Arachnolasma* [sic] Grabau, 1922, p. 59.

GENOHOLOTYPE (by author's original designation):—*Lophophyllum sinense* Yabe & Hayasaka, 1920, pl. vi, figs. 2a–g (not mentioned in the text), and described and figured by Grabau, 1922, pp. 59, 60, text-fig. 66 on p. 60. Lower Carboniferous: east of Ai-Chia-ping, Wei-ning-hsien, Province of Kuei-chou, South China.

ARACHNIOPHYLLUM as *Arachnophyllum* [sic] Dana, 1846, p. 186, text-fig. 1 on p. 186, and 1848, p. 360.

GENOLECTOTYPE (see Lang & Smith, 1927, p. 452):—*Acervularia baltica* Schweigger partim, Lonsdale, 1839, pl. xvi, figs. 8b–e (non 8, 8a), non *Acervularia baltica* Schweigger, 1819, table vi. Silurian, Wenlock Limestone: Wenlock, Dudley, etc., England=*Strombodes murchisoni* Edwards & Haime, 1851, p. 428, and 1855, p. 293, pl. lxx, figs. 1, 1a–d.

REMARKS. See Lang & Smith, 1927, p. 452; and *Nicholsonia* Schlüter.

ARACHNIOPHYLLUM Smyth, 1915, p. 558—pre-occupied by *Arachniophyllum* Dana.

GENOHOLOTYPE (by monotypy):—*A. simplex* Smyth, 1915, p. 558, pl. xxxvii, figs. 1a–d. Lower Carboniferous, zone C2–S1, Rush Conglomerate and Carlyan Limestone: Rush, Ireland.

REMARKS. We believe the genus is synonymous with *Dibunophyllum* Thomson & Nicholson.

ARACHNIUM Keyserling, 1846, p. 153.

GENOSYNTYPES:—Un-named species of *Lithostrotion* from the Russian Carboniferous, and the coral described by Volkmann, 1720, p. 120, pl. xviii, fig. 5, as "Corallium Arachnion . . . vorticalis."

GENOLECTOTYPE (here chosen):—The species figured by Volkmann, 1720, pl. xviii, fig. 5, which we consider to be the Silurian *Acervularia ananas* (Linnaeus). *Arachnium*, therefore, is a synonym of *Acervularia* Schweigger.

REMARKS. The specimen figured by Volkmann is presumably from the Drift of Germany.

ARACHNOLASMA Grabau—see *Arachnelasma* Grabau.

ARACHNOPHYLLUM Dana—see *Arachniophyllum* Dana.

ARAEOPOMA Lindström, 1883[1], p. 57.

GENOHOLOTYPE (by monotypy):—*A. prismaticum* Lindström, 1883[1], p. 58, pl. iv, figs. 8–14, pl. v, figs. 5–12, 15–17=*Cystiphyllum prismaticum* Lindström, 1868, p. 421, pl. vi, figs. 4–6=*Hallia calceoloides* partim Lindström, 1866[1], p. 288, pl. xxxi, figs. 12, 13 only [opercula only]. Silurian, Upper Llandovery-Wenlock: Isle of Gotland, Sweden.

ARAEOPORA Etheridge & Nicholson, 1879, p. 277.
GENOHOLOTYPE (by monotypy):—*A. australis* Etheridge & Nicholson, 1879, p. 278, text-fig. on p. 279. Devonian: Limestone of Burdekin River, North Queensland, Australia.

ARCOPHYLLUM Markov, 1926, p. 49.
GENOHOLOTYPE (by author's original designation):—*A. typus* Markov, 1926, p. 54, pl. iii, figs. 3, 5, 7. Middle Devonian, *Calceola* beds: western slope of the Urals, U.S.S.R.
REMARKS. Markov remarks, 1926, p. 49, that, owing to delay in publication, an article by Vollbrecht had anticipated his own, and the genus *Cosmophyllum*, there described, is probably identical with *Arcophyllum*.

ARTHROPHYLLUM Beyrich, 1850, p. 10, "eine neue Gattung . . . neben *Amplexus* und *Caninia* zu stellen ist." No species are mentioned, and the genus is thus a nomen nudum.
REMARKS. See next entry.

*ARTHROPHYLLUM F. A. Römer, 1854, p. 75, an orthoceratid cephalopod.
GENOHOLOTYPE (by monotypy):—*A. crassum* F. A. Römer, 1854, p. 75, pl. xi, fig. 23. Devonian: Kahleberg, near Clausthal, Harz Mountains, Germany.
REMARKS. Römer refers to the genus as "*Arthrophyllum* Beyrich." He describes it as an orthoceratid, which it undoubtedly is.

ASPASMOPHYLLUM C. F. Römer, 1880, p. 184.
GENOHOLOTYPE (by monotypy):—*A. crinophilum* C. F. Römer, 1880, p. 184=*A. philocrinum* [sic] C. F. Römer, 1883, p. 377, text-fig. 83 on p. 378. Middle Devonian: Gerolstein, Eifel district, Germany.

ASPIDIOPHYLLUM Thomson, 1875[2], pp. 153–154.
GENOLECTOTYPE (see Gregory, 1917, pp. 222, 229):—*A. koninckiana* Thomson, 1875[2], p. 155, pl. i, figs. 1, 1a, 2, 2a, 4, 4a, 7–8a. Lower Carboniferous, Viséan: Brockley, five miles south of Lesmahagow, Lanarkshire, and Third-part Quarry, three miles south of Beith, Ayrshire, Scotland.
REMARKS. Thomson & Nicholson, 1876[2], p. 68, use the name *Aspidophyllum*. Hill, 1938[2], p. 65, considers the genus synonymous with *Dibunophyllum* Thomson & Nicholson.

ASPIDOPHYLLUM Thomson & Nicholson, 1876[2], p. 68, *errore pro Aspidiophyllum* Thomson, 1875, p. 153.

ASTERIOPHYLLUM Porfiriev, 1937, pp. 30, 33.
GENOHOLOTYPE (by monotypy):—*A. aenigmaticum* Porfiriev, 1937, pp. 30, 33, pl. v, figs. a–l. Devonian: Reje River, eastern slopes of the Ural Mountains, U.S.S.R.

ASTEROCYCLES Vanuxem, 1842, p. 136.
GENOHOLOTYPE (by monotypy):—*A. confluens* Vanuxem, 1842, p. 136. Middle Devonian, Onondaga Limestone: Quarry south of Chittenango village, near Perryville, New York, U.S.A.

***ASTEROPORA* Agassiz, 1845, p. 1, pro *Astraeopora* de Blainville.**
REMARKS. Other modifications or errors for *Astraeopora* exist.

ASTHENOPHYLLUM Grubbs, 1939, p. 546.
GENOHOLOTYPE (by author's original designation):—*A. orthoseptatum* Grubbs, 1939, p. 547, pl. lxi, figs. 14–18, text-figs. 1a–e on p. 547. Silurian, Niagaran dolomite: Federal Stone Company's quarry, western Chicago, Illinois, U.S.A.

***ASTRAEA* as *Astrea* [sic] Browne, 1789, p. 392, a genus caelebs. Five species of Recent corals are described but not named, nor can they be identified.**

***ASTRAEA* as *Astrea* [sic] Lamarck, 1801, p. 371, a Recent hexacoral—preoccupied by *Astraea* Browne, 1789, p. 392, for a Recent coral, and by *Astraea* Bolten, 1798, p. 79, for a Recent gastropod.**
GENOLECTOTYPE (see Lang & Smith, 1927, p. 453):—*Madrepora rotulosa* Ellis & Solander, 1786, p. 166, pl. lv, figs. 1–3. Recent.
REMARKS. *Astraea* was largely used by early writers for compound Rugose corals.

ASTRAEOPHYLLUM Nicholson & Hinde, 1874, p. 152.
GENOHOLOTYPE (by monotypy):—*A. gracile* Nicholson & Hinde, 1874, p. 138 [bis], text-figs. 4a, b, on p. 137 [bis]. Silurian, Niagara Limestone: Owen Sound, Ontario, Canada.

*ASTRAEOPORA as *Astreopora* [sic] de Blainville, 1830, p. 348, and 1834, p. 383, a Recent hexacoral.
GENOLECTOTYPE (see Edwards & Haime, 1850, p. liv):—*Astraea myriophthalma* Lamarck, 1816, p. 260. Recent.
REMARKS. McCoy, 1844, p. 191, pl. xxvi, fig. 9, uses *Astraeopora antiqua* for a tabulate coral allied to *Vaughania vetus* Smyth, 1927, p. 424, pls. xx–xxii.

ASTROBLASTOCYCLUS Ludwig, 1866, p. 229—see R. Ludwig, 1865–1866, under "Literature."

ASTROBLASTODISCUS Ludwig, 1866, pp. 189, 227–229—see R. Ludwig, 1865–1866, under "Literature."

ASTROBLASTOTHYLACUS Ludwig, 1866, p. 230—see R. Ludwig, 1865–1866, under "Literature."

ASTROCALAMOCYATHUS Ludwig, 1866, pp. 188, 222—see R. Ludwig, 1865–1866, under "Literature."

ASTROCERIUM Hall, 1851, p. 399, and 1852[1], p. 120.
GENOLECTOTYPE (see Miller, 1889, p. 172):—*A. venustum* Hall, 1852[1], p. 120, pl. xxxiv, figs. 1a–i. Silurian, Niagaran: Lockport, Rochester, and other localities in New York, U.S.A.
REMARKS. *A. venustum* is a species of *Favosites* Lamarck. In 1851, p. 400, Hall mentions the species with three others, but gives no means of differentiating between them.

ASTROCHARTODISCUS Ludwig, 1866, pp. 189, 234—see R. Ludwig, 1865–1866, under "Literature."

ASTROCYATHUS Ludwig, 1865–1866, pp. 139, 184, 187, 203–209—see R. Ludwig, 1865–1866, under "Literature."

ASTROCYCLUS Ludwig, 1866, p. 184—see R. Ludwig, 1865–1866, under "Literature."

ASTRODENDROCYATHUS Ludwig, 1866, pp. 188, 220, 221—see R. Ludwig, 1865–1866, under "Literature."

ASTRODISCUS Ludwig, 1866, pp. 184, 187, 212—see R. Ludwig, 1865–1866, under "Literature."

ASTROITES Marklin *in literis* according to Bronn, 1848, p. 130, for *Heliolites* Dana.

REMARKS. In any case the name is pre-occupied by *Astroites* Walch, q.v.

*ASTROITES Walch, 1775, p. 42, a Recent hexacoral.

GENOHOLOTYPE (by absolute tautonymy):—*A. denticulatus* Walch, 1775, p. 45 = *Madrepora astroites* Pallas, 1766, p. 320. Recent: "Mare americanum" = *Astroites oblongus*; *fimbria singulorum pororum itidem lamellata*, Seba, 1758, p. 208, pl. cxii, figs. 15, 19, and *Astroitae globosi*; *poris in medio depressis, in ambitu tantillum extuberantibus* partim, Seba, 1758, p. 208, pl. cxii, fig. 22.

REMARKS. Walch, 1775, p. 45, actually states "*Astroites denticulatus* das Kronenrad, *madrepora astroites* des Hrn. Pallas." Thus he is clearly referring to Pallas's species, but his substitution of the trivial name by *denticulatus* is invalid, so that *Astroites astroites* Pallas is the genotype of *Astroites* by tautonymy. We reject Seba, 1758, as being non-Linnaean. See also J. E. Guettard, 1770, under "Literature."

ASTROLOPAS Ludwig, 1866, pp. 184, 187, 211—see R. Ludwig, 1865–1866, under "Literature."

ASTROPHLOEOCYATHUS Ludwig, 1866, p. 237—see R. Ludwig, 1865–1866, under "Literature."

ASTROPHLOEOCYCLUS Ludwig, 1866, pp. 189, 190, 237, 238—see R. Ludwig, 1865–1866, under "Literature."

ASTROPHLOEOTHYLACUS Ludwig, 1866, pp. 190, 239—see R. Ludwig, 1865–1866, under "Literature."

ASTROPHYLLUM Wedekind, 1924, pp. 45, 46, as sub-genus of *Cyathophyllum*.

GENOSYNTYPES:—

(1) *A. gerolsteinense* Wedekind, 1924, pp. 46, 48, text-figs. 63–69 on p. 45, and 70–74 on p. 47. Lower Middle Devonian: Salmer Weg, near Gerolstein, Eifel district, Germany.

(2) *A. gerolsteinense* var. *crassa* Wedekind, 1924, p. 48, text-fig. 75 on p. 48. Same horizon and locality.
(3) *A. tenue* Wedekind, 1924, p. 48. Same horizon and locality.
(4) *A. intortum* Wedekind, 1924, p. 48, text-fig. 99 on p. 64. Lower Middle Devonian: Üxheim, near Heiligenstein; and Auburgschichten: Auburg, Eifel district, Germany.

GENOLECTOTYPE (here chosen):—*A. gerolsteinense* Wedekind.

ASTROPLACOCYATHUS Ludwig, 1866, pp. 191, 243—see R. Ludwig, 1865–1866, under "Literature."

ASTROTHROMBOCYATHUS Ludwig, 1866, p. 190—see R. Ludwig, 1865–1866, under "Literature."

ASTROTHYLACUS Ludwig, 1866, pp. 184, 187, 209–211—see R. Ludwig, 1865–1866, under "Literature."

ASYMMETRILAMELLUM Thomson, 1901, p. 483—nomen nudum.

REMARKS. No description was given, but two species were mentioned, viz., *A. lintoni* Thomson (Lower Carboniferous, Kilmarnock Water, Scotland), and *A. asheyburnense* Thomson (Lower Carboniferous, Asheyburn, Muirkirk, Scotland). Neither of these was figured or described, and hence both are nomina nuda, so that the genus has no standing. Nevertheless, Gregory, 1917, pp. 223, 238, designated *A. lintoni* as the genotype [sic].

ATELOPHYLLUM Wedekind, 1925, pp. 37, 38.

GENOHOLOTYPE (by author's original designation):—*A. emsti* Wedekind, 1925, pp. 37, 38. Upper part of Middle Middle Devonian: Emst, near Hagen, Eifel district, Germany.

AULACOPHYLLUM Edwards & Haime, 1850, p. lxvii.

GENOHOLOTYPE (by authors' original designation):—*Caninia sulcata* d'Orbigny, 1850, p. 105. [Middle] Devonian: Falls of the Ohio; Cincinnati, U.S.A.; and Lake Erie, N. America.

REMARKS. See *Pinnatophyllum* Grabau.

AULINA Smith, 1916[2], p. 2, and 1917, p. 290.

GENOHOLOTYPE (by monotypy):—*A. rotiformis* Smith, 1916[2], p. 2, and 1917, p. 290, pl. xxii, figs. 6–11, text-figs. 3 on p. 291 and 4 on p. 292. Lower Carboniferous, top of *Dibunophyllum* zone, Fell Top (=Harlow Hill) Limestone: Harlow Hill, Northumberland, England.

REMARKS. The species of this genus are derived polyphyletically from *Lithostrotion* Fleming. See also Smith, 1925.

AULOCAULIS Fenton & Fenton, 1937, p. 119.

GENOHOLOTYPE (by authors' original designation):—*Aulopora expansa* Fenton & Fenton, 1924, p. 67, pl. xvi, fig. 10. Upper Devonian, Hackberry Stage: Cerro Gordo County, Iowa, U.S.A.

AULOCLISIA Lewis, 1927, p. 29.

GENOHOLOTYPE (by author's original designation):—*A. mutatum* Lewis, 1927, p. 31, pl. i, figs. 1, 1a, b, pl. ii, fig. 1. Lower Carboniferous, D1 zone: Scarlett Point, Castletown, Isle of Man, and other localities in the north-west of England and the Isle of Man.

AULOCYSTIS Schlüter, 1885[2], p. 148.

GENOHOLOTYPE (by monotypy):—*A. cornigera* Schlüter, 1885[2], p. 148, and described and figured by Schlüter, 1889, p. 420, pl. xvi, figs. 8–10. Middle Devonian, Paffrather Mulde: Büchel, Eifel district, Germany.

REMARKS. *Aulocystis* Schulze, 1885, p. 451, for a porifer was at that time a nomen nudum.

AULOHELIA Gerth, 1921, p. 119.

GENOSYNTYPES:—

(1) *A. irregularis* Gerth, 1921, p. 120, pl. cxlix, fig. 13, pl. cl, figs. 15–17. Permian: Basleo and Noil Fatoe, Timor.

(2) *A. laevis* Gerth, 1921, p. 120, pl. cl, fig. 18. Permian: Basleo, Timor.

GENOLECTOTYPE (here chosen):—*A. irregularis* Gerth.

AULOPHYLLUM Edwards & Haime, 1850, p. lxx.

GENOHOLOTYPE (by authors' original designation):—*Clisiophyllum prolapsum* McCoy, 1849, p. 3. Lower Carboniferous [*Dibunophyllum* zone]: Derbyshire, England = *Turbinolia fungites* Fleming, 1828, p. 510, which is *Fungites* Ure, 1793, p. 327, pl. xx, fig. 6. Lower Carboniferous [*Dibunophyllum* zone]: Kilbride, Renfrewshire, Scotland.

REMARKS. McCoy re-described and figured his *Clisiophyllum prolapsum* in 1851, p. 95, pl. iii c, figs. 5, 5a, and added to the localities where the species occurs the Carboniferous Limestone [*Dibunophyllum* zone] of Lowick, Northumberland, England, and Beith, Ayrshire, Scotland. See *Cyclophyllum* Duncan & Thomson.

AULOPORA Goldfuss, 1829, p. 82.

GENOHOLOTYPE (see Edwards & Haime, 1850, p. lxxvi):—*A. serpens* Goldfuss, 1829, p. 82, pl. xxix, figs. 1a–d. Middle Devonian: Bensberg and Eifel district, Germany.

REMARKS. *Aulopora serpens* Goldfuss includes more than one species. We, therefore, here chose the specimen figured on pl. xxix, fig. 1b, as lectotype of the species. The trivial name *serpens* is a homonym. Goldfuss quotes *Tubiporites serpens* Schlotheim, 1820, p. 367, as a synonym, and Schlotheim identifies the form with *Tubipora serpens* Linnaeus, 1758, p. 790, a recent Mediterranean form; to which in 1767[2], p. 1271, Linnaeus adds a Silurian coral from Gotland (*Millepora dichotoma, repens*, . . . Linnaeus, 1745, p. 37, fig. xxvi, and 1749, p. 105, pl. iv, fig. xxvi). Knorr & Walch, 1775, p. 157, suppl. pl. vi*, fig. 1, described and figured "*Aulopora serpens*" as *Milleporites repens*, and Edwards & Haime, 1851, p. 312, recognising Knorr & Walch's priority, called the species *Aulopora repens* Knorr & Walch (this is not

Tubipora repens Linnaeus, 1758, p. 790, a recent fresh-water organism—"Habitat in Aquae dulcis Plantis, in Nymphaea &c. Minuta"). But Knorr & Walch are not strictly binominal in their nomenclature and are not recognised by most systematists. Nicholson, 1879, p. 220, fig. 31G, refers to the species as *Aulopora repens* Edwards & Haime, implying that he considers that, in quoting the non-Linnaean Knorr & Walch, Edwards & Haime introduce a new name, and with this we concur. Since, however, the name *Aulopora serpens* has been in constant use for more than a century the advisability of its standardisation might well be considered.

AULOPORELLA Grubbs, 1939, p. 549.

GENOHOLOTYPE (by author's original designation):—*A. typa* Grubbs, 1939, p. 549, pl. lxi, figs. 24–26. Silurian, Niagaran dolomite: Federal Stone Company's quarry, western Chicago, Illinois, U.S.A.

AULOZOA Grubbs, 1939, p. 549.

GENOHOLOTYPE (by author's original designation):—*A. constricta* Grubbs, 1939, p. 549, pl. lxi, figs. 27–29. Silurian, Niagaran dolomite: Federal Stone Company's quarry, western Chicago, Illinois, U.S.A.

AXINURA Castelnau, 1843, p. 49.

GENOHOLOTYPE (by monotypy):—*A. canadensis* Castelnau, 1843, p. 49, pl. xxiv, fig. 4. [Drift ex-Devonian]: Lake Saint Clair, U.S.A.

REMARKS. G. M. Ehlers, in a letter to one of us [S.S.] explains that the type of *A. canadensis* must be a Drift specimen, and probably was derived from Devonian rocks to the north-east of Lake Saint Clair; that, although Edwards & Haime, 1851, p. 435, pl. xiii, figs. 1, 1a, b, and others have supposed it to be of Carboniferous age and identical with the coral figured by Castelnau, 1843, pl. xxiv, fig. 5, as *Astrea mamillaris*, both figure and description suggest rather *Eridophyllum* or *Craspedophyllum*; and that very likely it is the same as *C. archiaci*. Unless the holotype can be traced, however, the name must lapse. See *Acrocyathus* d'Orbigny.

AXOPHYLLOIDES Yabe & Hayasaka, 1915, p. 61—nomen nudum.

REMARKS. The genus has no validity as it is only a nomen nudum, for no diagnosis is given, while the only species referred to it, namely, *A. rikuzenicus* Yabe & Hayasaka, is a nomen nudum also.

AXOPHYLLUM Edwards & Haime, 1850, p. lxxii.

GENOHOLOTYPE (by authors' original designation):—*A. expansum* Edwards & Haime, 1850, p. lxxii, described and figured by Edwards & Haime, 1851, p. 455, pl. xii, figs. 3–3b. Lower Carboniferous, Viséan: Visé, Belgium.

REMARKS. The syntypes are also figured by Salée, 1913, p. 370, pl. xv, figs. 2, 3. None of these figures shows a section. One of us [S.S.], who has seen the syntypes, considers them to be only isolated corallites of *Lonsdaleia crassiconus* McCoy, but the specimens require sectioning before they can be identified with certainty. We, therefore, consider the genus as probably a synonym of *Lonsdaleia* McCoy. Miss D. Hill, however, informs us that, as a result of

her examination of the syntypes, she considers it probable that *Axophyllum* is a synonym of *Carcinophyllum* Thomson & Nicholson.

BARBOURIA nom. nov. for *Craterophyllum* Barbour, 1911, p. 38, non *Craterophyllum* Foerste, 1909, p. 101, nec *Craterophyllum* Tolmachev, 1931, pp. 344, 614.

GENOHOLOTYPE (genoholotype of *Craterophyllum* Barbour by monotypy):—*Craterophyllum verticillatum* Barbour, 1911, p. 38, pls. i–iv. Carboniferous, probably the horizon of the Oread Limestone: Nehawka, Cass County, Nebraska, U.S.A.

BARRANDEOPHYLLUM Počta, 1902, p. 190.

GENOHOLOTYPE (by monotypy):—*B. perplexum* Počta, 1902, p. 192, pl. cviii, figs. 4, 5, 7, 13, 19, and ?10, and text-figs. 9, 10 on p. 191. Middle Devonian, Bránik Limestone, *gα*: Hlubočepy, Bohemia.

BARYPHYLLUM Edwards & Haime, 1850, p. lxvi.

GENOHOLOTYPE (by authors' original designation):—*B. verneuilianum* Edwards & Haime, 1850, p. lxvi, described and figured by Edwards & Haime, 1851, p. 352, pl. vi, figs. 7, 7a. Devonian: Perry County, Tennessee, U.S.A.

BATTERSBYIA Edwards & Haime, 1851, pp. 151, 227.

GENOHOLOTYPE (by monotypy):—*B. inaequalis* Edwards & Haime, 1851, p. 227, and figured by Edwards & Haime, 1852, pl. xlvii, figs. 2, 2a, b. Devonian: Teignmouth, Devonshire, England.

BEAUMONTIA Edwards & Haime, 1851, pp. 154, 276.

GENOSYNTYPES:—

(1) *B. venelorum* Edwards & Haime, 1851, pp. 154, 276, pl. xvi, figs. 6, 6a, b. Lower Devonian: Nehou (Manche), France.

(2) *B. egertoni* Edwards & Haime, 1851, p. 276, and 1852, p. 160, pl. xlv, fig. 1. Carboniferous [Viséan]: County Fermanagh, Ireland.

(3) *Columnaria laxa* McCoy, 1849, p. 122, and 1851, p. 92, pl. iiiC, fig. 11. Carboniferous [Viséan]: Derbyshire, England.

GENOLECTOTYPE (here chosen):—*C. laxa* McCoy.

REMARKS. Edwards & Haime, 1851, p. 154, cited *B. venelorum* as the example, thus implying that they intended it to be the type, while at the same time they did not designate it as such. In rejecting *B. venelorum* and choosing *C. laxa* as genolectotype we depart from our general rule of accepting Edwards & Haime's obvious intention in their French work (because their "exemple" obviously connotes the same as the "Typ. sp." of their English work). Our reason in this instance is that the type specimen of *Beaumontia venelorum* (kindly lent us from l'Ecole des Mines, Paris, by Prof. Piveteau) is a recrystallised *Favosites* showing no structures, and is therefore useless as a type and incapable of showing the characters of the genus. *Beaumontia egertoni* is a characteristic species of *Michelinia* de Koninck. *Columnaria laxa* is phaceloid in habit, in contrast to the cerioid *Michelinia*.

BILLINGSARIA Okulitch, 1936, p. 61.
GENOHOLOTYPE (by author's original designation):—*Columnaria parva* Billings, 1859[2], p. 428. Ordovician, Chazy Limestone: Mingan Islands, U.S.A.

BILLINGSASTRAEA Grabau, 1917[2], p. 957.
GENOHOLOTYPE (by monotypy):—*Phillipsastraea verneuili* Edwards & Haime, 1851, p. 447, pl. x, fig. 5. Devonian: Wisconsin, U.S.A.

BILLINGSIA de Koninck, 1876, p. 75.
GENOHOLOTYPE (by monotypy):—*B. alveolaris* de Koninck, 1876, p. 75, pl. ii, fig. 4. Devonian: Yass, New South Wales, Australia.
REMARKS. This is a doubtful form. All the specimens described in this paper were burnt. [See also the 1898 translation, p. 58.]

BLOTHROMISSUM Grabau, 1917[1], p. 199, a nomen nudum.

BLOTHROPHYLLUM Billings, 1859[1], p. 129.
GENOHOLOTYPE (by monotypy):—*B. decorticatum* Billings, 1859[1], p. 130, fig. 25 on p. 130. Middle Devonian, Corniferous [Onondaga] Limestone: various localities in County Haldimand, Canada West [Ontario].

*BLUMENBACHIUM König, 1825, p. 3, a Pliocene polyzoan.
REMARKS. Lonsdale, 1839, p. 680, pl. xv, figs. 26, 26a, doubtfully refers to this genus a specimen he considered to be a coral from the Silurian, Wenlock Limestone, of Dudley, Worcestershire, England. Salter, 1867, explanation of pl. xli, figs. 26, 26a, considers Lonsdale's specimen is inorganic.

BOJOCYCLUS Prantl, 1939[1], p. 104.
GENOHOLOTYPE (by author's original designation):—*B. bohemicus* Prantl, 1939[1], pp. 106, 107, text-figs. 1a, b on p. 105. Middle Devonian, "White Bed" in the uppermost layers of the Hlubočepy Limestones, $g\gamma$: Holyně, in the Reporyje Valley, west of Prague, Bohemia.

***BOLBOPORITES** Pander, 1830, p. 106.
GENOLECTOTYPE (see Bassler, 1915, p. 128):—*B. mitralis* Pander, 1830, p. 107, pl. ii, fig. 7. Ordovician or Silurian: neighbourhood of St. Petersburg, Russia (according to Eichwald, 1840, p. 202, at Pawlowsk, Russia).
REMARKS. In our opinion this is not a coral—see also Edwards & Haime, 1851, p. 246, Lindström, 1883[3], p. 7, and Miller, 1889, p. 174; although it has been considered one by some authors, e.g. Billings, 1859[2], p. 429.

BORDENIA Greene, 1901, p. 57.
GENOHOLOTYPE (by author's original designation):—*B. zaphrentiformis* Greene, p. 57, pl. xix, figs. 2–9. Lower Carboniferous, St. Louis group, Warsaw division: Harrison, Floyd, and Washington counties, Indiana, U.S.A.

BOREASTER Lambe, 1906, p. 323.
GENOHOLOTYPE (by monotypy):—*B. lowi* Lambe, 1906, p. 323, text-figs. on p. 324.

Silurian, Niagaran Formation: Beechey Island, Lancaster Sound, Arctic America.

REMARKS. This may prove to be synonymous with *Favosites* Lamarck.

BOTHRIOPHYLLUM Vollbrecht, 1926, p. 220, pl. xv, figs. 1a–e—genus caelebs, no species being mentioned, although a figure is given on pl. xv, figs. 1a–c, of *Bothriophyllum* sp., from the Devonian of Heiligenstein, near Gerolstein, Eifel district, Germany.

BOTHROPHYLLUM Trautschold, 1879, p. 30, as sub-genus of *Cyathophyllum.*

GENOHOLOTYPE (by monotypy):—*B. conicum* (Fischer von Waldheim) Trautschold, 1879, p. 30, pl. v, figs. 1a–f. [Carboniferous], "Ober Bergkalk": Miatchkova, on the Moskva River, south of Moscow, Russia. ?=*Turbinolia conica* Fischer von Waldheim, 1830, explanation of pl. xxx, fig. 6, and 1837, p. 153, pl. xxx, fig. 6; plus *Turbinolia arietina* Fischer von Waldheim, 1830, explanation of pl. xxx, fig. 4, and 1837, p. 153, pl. xxx, fig. 4; plus *Turbinolia ibicina* Fischer von Waldheim, 1830, explanation of pl. xxx, fig. 5, and 1837, p. 153, pl. xxx, fig. 5. [Carboniferous]: Miatchkova, Russia.

REMARKS. Fischer von Waldheim's figures are not detailed enough to identify with certainty, but Trautschold and Stuckenberg (see under *Pseudocaninia* Stuckenberg) are probably right in identifying their figures with the coral.

BRACHYELASMA (βραχύς=short, and ἔλασμα=a plate) nom. nov. for *Dybowskia* Wedekind, 1927, p. 18, non *Dybowskia* Dall, 1876, p. 46.

GENOHOLOTYPE (genoholotype of *Dybowskia* Wedekind by author's original designation):—*Dybowskia prima* Wedekind, 1927, p. 18, pl. i, figs. 10, 11. Silurian, Llandoverian: Stavnestangen, Tyrifjord, Norway.

BRACHYPHYLLUM Chi, 1931, p. 6—errore pro *Bradyphyllum* Grabau.

BRADYPHYLLUM Grabau, 1928, p. 35.

GENOHOLOTYPE (by author's original designation):—*B. bellicostatum* Grabau, 1928, pp. 36, 37, pl. ii, figs. 11a–e, 12a–c, 13, 14–18c. Middle Carboniferous: Moukou, Fu-I-Hsien, Kansu, China.

REMARKS. Grabau, 1928, p. 36, suggests that *Heterelasma* Grabau may be an immature form of *Bradyphyllum.*

BRIANTIA Barrois, 1889, p. 44.

GENOHOLOTYPE (by monotypy):—*B. repleta* Barrois, 1889, p. 45, pl. ii, figs. 1, 1a–e. Devonian, Calcaire d'Erbray: Chateau-Briant, near Erbray, France.

BROCHIPHYLLUM Wedekind, 1923, p. 35—genus caelebs, no species being mentioned. The genus is stated to occur in the Middle Devonian of Niederehe, Heiligenstein, and Zielsdorf, in the Eifel district of Germany.

BUCANOPHYLLUM Ulrich, 1886, p. 31.

GENOHOLOTYPE (by monotypy):—*B. gracile* Ulrich, 1886, p. 31, pl. iii, figs. 9–9c. Lower Devonian: Falls of the Ohio, U.S.A.

CAENOPHYLLUM Clark, 1926, p. 85.

GENOHOLOTYPE (by author's original designation):—*C. varians* Clark, 1926, p. 87, text-figs. 1–6 on p. 86. Lower Carboniferous, Tournaisian, Z zone: Pollarone Cliffs, County Sligo, Ireland.

CALAMOPHYLLIA Portlock, 1843, p. 335—errore pro *Caryophyllia* Lamarck.

CALAMOPORA Goldfuss, 1829, p. 77.

GENOLECTOTYPE (see King, 1850, p. 26):—*C. alveolaris* Goldfuss, 1829, p. 77, pl. xxvi, figs. 1a–c. Devonian [Silurian Drift]: Eifel [in error] and Groningen, Holland.

REMARKS. Goldfuss expressly describes *Calamopora* as "*Tubipora* Auctorr. *Favositae* et *Alveolatae* [sic] *species* Lam.," and most of the eight genosyntypes are species of *Favosites* and *Alveolites*, but include the genotypes of *Roemeria* Edwards & Haime and *Thamnopora* Steininger and some polyzoans. The original of Goldfuss's figure of *Calamopora alveolaris* is a species of *Favosites* near, but not identical with, *F. gothlandicus* Lamarck. It is labelled "Eifel," but this locality has been queried on the label, and we are certain that it is not an Eifel fossil and is probably an erratic. It answers Goldfuss's own remark, "Verwitterte Geschiebe derselben kommen in der Gegend von Groningen vor."

CALAPOECIA Billings, 1865[2], p. 425.

GENOLECTOTYPE (see Lindström, 1883[3], p. 7):—*C. anticostiensis* Billings, 1865[2], p. 426. "Middle Silurian" [Ordovician], Anticosti Group: west side of Gamache Bay, Anticosti Island, Canada.

REMARKS. Lindström's selection of the genolectotype forestalled Miller's designation in 1889, p. 175, of *C. canadensis* Billings, 1865[2], p. 426, as the genolectotype. Cox, 1936, p. 6, considers that only one species, with several varieties, of the genus exists. See *Columnopora* Nicholson and *Houghtonia* Rominger.

CALAPOENIA. In *Nomenclator animalium generum et subgenerum*, p. 489—errore pro *Calapoecia*.

CALCEOLA Lamarck, 1799, p. 89.

GENOHOLOTYPE (by monotypy):—*Anomia sandalium* [sic] Gmelin in Linnaeus [1791], p. 3349 = *Anomia sandalinum* Linnaeus, 1771, p. 547. "Fossilis Germaniae," [Devonian]: [Eifel district], Germany.

REMARKS. See Lindström, 1883[1], pp. 10–22. Both Linnaeus and Lamarck considered *Calceola* as a bivalve mollusc, with which Lamarck at least included brachiopods. These views were held until quite late in the nineteenth century, when Lindström, 1866[1], pp. 273 (footnote) and 275, pointed out the true position of the fossil. Nevertheless, several eighteenth-century writers, e.g., Walch, 1771, pp. 218–221, suppl. pl. ixD, figs. 5, 6, had anticipated Lindström in describing the "Sandiolite" or "Pantoffelstein" as a coral. Recently, however, Silvestri, 1930, pp. 1–15, has revived the old erroneous claim that *Calceola* (and *Rhizophyllum* Lindström) is either a lamellibranch (preferably) or a brachiopod.

CALIAPORA Schlüter, 1889, p. 353.

GENOHOLOTYPE (by monotypy):—*Alveolites battersbyi* Edwards & Haime, 1851, p. 257, and 1853, p. 220, pl. xlix, figs. 2, 2a. Middle Devonian: Torquay, Devonshire, England.

REMARKS. Schlüter, 1889, p. 357, gives the occurrence of the genoholotype as Dartington, Devonshire, England, and Grube Hainau, near Giessen, Rhenish Prussia, Germany.

CALOPHYLLUM Dana, 1846, p. 183, and 1848, p. 356—the genus is diagnosed, but no species is mentioned.

GENOHOLOTYPE (first species subsequently referred to the genus—by King, 1850, p. 22):—*C. donatianum* King, 1850, p. 23, pl. iii, fig. 1 = *Turbinolia donatiana* King, 1848, p. 6. Permian: Humbleton Hill, Durham, England.

REMARKS. *Calophyllum* Dana is synonymous with *Polycoelia* King, 1849, since it has the same genotype, the synonymy of which is given under *Polycoelia* King.

CALOSTYLIS Lindström, 1868, p. 421.

GENOHOLOTYPE (by monotypy):—*C. cribraria* Lindström, 1868, p. 421, pl. vi, figs. 1–3 = *Clisiophyllum denticulatum* Kjerulf, 1865, pp. 22, 25, text-fig. 32 on p. 25. Silurian, Salopian: Isle of Gotland, Sweden.

REMARKS. See Smith, 1930[1].

CALVINASTRAEA Grabau, 1917[1], p. 199—nomen nudum.

CALVINIA Savage, 1913, p. 65, and 1917, p. 115—pre-occupied by *Calvinia* Nutting, 1900, p. 77, for a hydrozoan, and re-named *Cavella* by Stechow, q.v.

GENOHOLOTYPE (by author's original designation):—*C. edgewoodensis* Savage, 1913, p. 66, pl. ii, figs. 15–17, and 1917, p. 116, pl. iv, figs. 15–17. Silurian, Edgewood Formation, Alexandrian Series: ¼-mile south-east of Gale, Alexander County, Illinois, U.S.A.

CAMPOPHYLLUM Edwards & Haime, 1850, p. lxviii.

GENOHOLOTYPE (by authors' original designation):—*Cyathophyllum flexuosum* Goldfuss, 1826, p. 57, pl. xvii, figs. 3a, b. Devonian: Eifel district, Germany, *fide* Goldfuss, but wrongly located and probably Carboniferous.

REMARKS. *C. flexuosum* exhibits characters intermediate between those of *Caninia* Michelin and *Palaeosmilia* Edwards & Haime. Prof. Schindewolf, who has studied Goldfuss's types, considers it to be a *Caninia*, stating in a letter to one of us [S.S.], "*Cyathophyllum flexuosum* Goldf. eine *Caninia* ist. *Cyathophyllum excentricum* Goldf. ist ein *Carcinophyllum*." Miss D. Hill, on the other hand, regards *C. flexuosum* as probably a *Palaeosmilia*. Frech, 1885[1], pp. 27, 40, pl. ix, figs. 1, 1a–c, pl. x, fig. 1, re-named the species *Cyathophyllum aquisgranense*. See *Caninophyllum* Lewis. Thomson, 1883, p. 376, is wrong in referring to *C. murchisoni* Edwards & Haime, 1851, p. 396, as the genoholotype.

CAMPSACTIS Rafinesque & Clifford, 1820, p. 234.

GENOSYNTYPES:—

(1) *C. canaliculata* Rafinesque & Clifford, 1820, p. 234. [Devonian]: Kentucky, U.S.A.

(2) *C. flexuolaris* Rafinesque & Clifford, 1820, p. 234. [Devonian]: Kentucky, U.S.A.

(3) *C. torsa* Rafinesque & Clifford, 1820, p. 234. [Devonian]: Kentucky, U.S.A.

GENOLECTOTYPE (here chosen):—*C. canaliculata* Rafinesque & Clifford.

CAMPTOLITHUS Lindström, 1899, p. 99.

GENOHOLOTYPE (by monotypy):—*Lyellia papillata* Rominger, 1876 [?1877], p. 16, pl. ii, fig. 3. Silurian, Niagaran: Point Detour, Lake Huron, Michigan, U.S.A.

CANINIA Michelin in Gervais, 1840, p. 485 (non *Kaninia* Walcott & Resser, 1924, p. 6, an Ozarkian trilobite).

GENOHOLOTYPE (by author's original designation):—*C. cornucopiae* Michelin in Gervais, 1840, p. 485, and Michelin, 1847, p. 256, pl. lix, fig. 5. "Terrains de formation secondaire [sic], à Sablé (Sarthe), en Belgique, etc." (Michelin in Gervais, 1840); Carboniferous [Tournaisian]: Tournai, Belgium (Michelin, 1847).

REMARKS. See Carruthers, 1908, pp. 158–170. Bather, 1908, p. 287, argues that the date of Gervais's article was probably 1841. Sarthe is possibly an error. See also *Cyathopsis* d'Orbigny.

CANINOPHYLLUM Lewis, 1929, p. 456.

GENOHOLOTYPE (by author's original designation):—*Cyathophyllum archiaci* Edwards & Haime, 1852, p. 183, pl. xxxiv, fig. 7. Carboniferous Limestone, [Upper D zone]: Llanymynech, North Wales.

REMARKS. *C. archiaci* has characters intermediate between those of *Caninia* Michelin and *Palaeosmilia* Edwards & Haime, and closely resembles *Cyathophyllum flexuosum* Goldfuss—see *Campophyllum* Edwards & Haime.

CANNAPORA Hall—see *Cannipora* Hall.

CANNIPORA as *Cannapora* [sic] Hall, 1852[1], p. 43.

GENOHOLOTYPE (by monotypy):—*C. junciformis* Hall, 1852[1], p. 43, pl. xviii, figs. 1a–f. Silurian, Clinton Group: Ontario, Wayne County, New York, and Rochester, New York, U.S.A.

CANTRILLIA Smith, 1930[2], p. 298.

GENOHOLOTYPE (by author's original designation):—*C. prisca* Smith, 1930[2], p. 298, pl. xxvi, figs. 9–19, text-fig. 2 on p. 299. Silurian, Valentian, Purple Shales: small tributary of Hughley Brook, 200 yards above its junction with main stream, near Hughley, Shropshire, England.

REMARKS. This genus, which in many ways is the most primitive Rugose coral yet described, is allied to *Tryplasma* Lonsdale.

CARCINOPHYLLUM Thomson & Nicholson, 1876[2], p. 70, text-fig. H on p. 71 (name only). (See also Thomson, 1880, p. 241.)

GENOHOLOTYPE (by the designation of Thomson, 1880, p. 242, who first referred

a species to the genus):—*C. kirsopianum* Thomson, 1880, p. 243, pl. ii, figs. 7–7b. Lower Carboniferous, Viséan, [D_1 zone]: Arbigland, Dumfriesshire, Scotland.

REMARKS. See *Agassizia* Thomson and *Axophyllum* Edwards & Haime.

CARINTHIAPHYLLUM Heritsch, 1936, p. 134.

GENOHOLOTYPE (by author's original designation):—*C. kahleri* Heritsch, 1936, p. 135, pl. xvii, fig. 29, pl. xviii, figs. 5, 7–13, text-fig. 39 on p. 135 (text-fig. pl. iv), and text-fig. 40 on p. 139 (text-fig. pl. v). Upper Carboniferous, Auernig beds, Obere Kalkarme Schichtgruppe: northern side of P. 1885, between Garnitzen and Krone, Carnic Alps, Austria.

CARNEGIA [sic] Girty—see *Carnegiea* Girty.

CARNEGIEA Girty as *Carnegia* [sic] Girty, 1907, p. 40—emended to *Carnegiea* by Girty, 1913, p. 313 (non *Carnegia* Holland, 1896, p. 134, a Recent saturnid).

GENOHOLOTYPE (by author's original designation):—*C. bassleri* Girty, 1907, p. 40, and 1913, p. 313, pl. xxvii, figs. 4, 5. Upper Carboniferous, Pennsylvanian, Wu-shan Limestone: near Liang-ho-k'ou, East Scï-chúan [East Szechuan], China.

REMARKS. The genus was described as a stromatoporoid, but there is the possibility that it is a *Chaetetes* Fischer von Waldheim MS. in Eichwald.

CARNIAPHYLLUM Heritsch, 1936, p. 131.

GENOHOLOTYPE (by author's original designation):—*C. gortanii* Heritsch, 1936, p. 131, pl. xviii, fig. 17, and text-fig. 35 on p. 135 (text-fig. pl. iv). Upper Carboniferous, Auernig beds, limestone north of and below the boundary-stone 301, Carnic Alps, Austria.

CARRUTHERSELLA Garwood, 1913, p. 555.

GENOHOLOTYPE (by monotypy):—*C. compacta* Garwood, 1913, p. 555, pl. xlviii, figs. 1a-d. Lower Carboniferous, summit of *Seminula gregaria* sub-zone: Meathop Fell, Arnside district, Westmorland, England.

CARYOPHYLLEA Fleming, 1828, p. 508, and Eichwald, 1829, p. 187—errore pro *Caryophyllia* Lamarck, q.v.

*CARYOPHYLLIA Lamarck, 1801, p. 370, a Recent hexacoral.

GENOLECTOTYPE (see Broderip, 1828, p. 486):—*Madrepora cyathus* Ellis & Solander, 1786, p. 150, pl. xxviii, fig. 7. Recent: south of France and Italy.

REMARKS. Early authors referred several species of Palaeozoic corals to this genus.

CATENARIA König, 1825, pl. xiii, figs. 151, 152—pre-occupied by *Catenaria* Zeder, 1800, p. 207, for a worm.

REMARKS. In any case *Catenaria* König cannot stand since König's pl. xiii was never published, but issued privately after König's death.

CATENIPORA Lamarck, 1816, p. 206.

GENOSYNTYPES:—

(1) *C. escharoides* Lamarck, 1816, p. 207. [Silurian]: shores of the Baltic Sea.

(2) *C. axillaris* Lamarck, 1816, p. 207. [Silurian]: shores of the Baltic Sea = *Millepora . . . eminentibus* Linnaeus, 1745, p. 37, fig. xxvi, and 1749, p. 105, pl. iv, fig. xxvi = *Tubipora serpens* Linnaeus, 1767[2], p. 1271 partim, non 1758, p. 790.

GENOLECTOTYPE (here chosen):—*C. escharoides* Lamarck = *Millepora . . . concatenatis* Linnaeus, 1745, p. 34, fig. xx, and 1749, p. 103, pl. iv, fig. xx = *Tubipora catenularia* Linnaeus, 1767[2], p. 1270.

REMARKS. The genus is synonymous with *Alyssites* Fischer von Waldheim, 1813, p. 387, which was later emended to *Halysites* by Fischer von Waldheim, 1828, p. 15. *C. axillaris*, the other genosyntype, is a *Syringopora* Goldfuss.

CAUNOPORA Phillips, 1841, p. 18.

GENOHOLOTYPE (by monotypy):—*C. placenta* Phillips, 1841, p. 18, pl. x, figs. 29a-d = *Coscinopora placenta* Goldfuss? [sic], Lonsdale, 1840, p. 697 (non *Coscinopora placenta* Goldfuss, 1826, p. 31, pl. ix, fig. 18). Middle Devonian: Torquay and Plymouth, Devonshire, England.

REMARKS. *Caunopora* was described as a coral, but is a species of *Stromatopora* and a species of *Syringopora* in symbiotic relationship. In view of the fact that the term *Caunopora* was always employed to indicate the presence in the stromatoporoid coenosteum of the *Syringopora* tubes (e.g., Nicholson, 1886[1], pp. 110–130), we here select the species of *Syringopora* as lectotype of *Caunopora* and so make the latter a synonym of *Syringopora* Goldfuss.

CAVELLA Stechow, 1922, p. 152—new name for *Calvinia* Savage, 1913, q.v.

GENOHOLOTYPE (genoholotype by monotypy of *Calvinia* Savage):—*Calvinia edgewoodensis* Savage, 1913, p. 66, pl. ii, figs. 15-17, and 1917, p. 116, pl. iv, figs. 15-17. Silurian, Edgewood Formation, Alexandrian Series: $\frac{1}{4}$-mile south-east of Gale, Alexander County, Illinois, U.S.A.

CAYUGAEA Lambe, 1901, p. 196.

GENOHOLOTYPE (by author's original designation):—*C. whiteavesiana* Lambe, 1901, p. 196, pl. xviii, figs. 4, 4a, b. Middle Devonian, Corniferous [Onondaga] Limestone: Cayuga, Ontario, Canada.

REMARKS. Lambe, 1901, p. 196, gives "*C. venusta* mihi", but alters this to *whiteavesiana* on a slip under "Erratum."

CAYUGOEA Embleton, 1902, p. 18—errore pro *Cayugaea* Lambe.

CENOPHYLLUM as *Kenophyllum* [sic] Dybowski, 1873[1], pp. 333, 358.

GENOHOLOTYPE (by monotypy):—*C. subcylindricum* Dybowski, 1873[1], p. 358. Ordovician, Z2 = zone 2 of Schmidt, 1858: Hoheneichen in the Isle of Dagö, and Island of Worms, Esthonia.

REMARKS. Rye, 1875, p. 534, corrected the spelling to *Cenophyllum*.

CENTREPHYLLUM Thomson—see *Centrophyllum* Thomson.

CENTROCELLULOSUM Thomson, 1883, p. 452.

GENOLECTOTYPE (see Gregory, 1917, pp. 223, 238):—*C. densithecum* (as *densothecum* [sic]) Thomson, 1883, p. 453, pl. x, figs. 7, 7a, 9. Lower Carboniferous, Viséan: Charleston, Fifeshire, Scotland.

REMARKS. Gregory, 1917, p. 238, considered this genus a synonym of *Fasciculophyllum* Thomson.

CENTROLAMELLUM Thomson, 1901, p. 484—proposed in a footnote to replace *Centrephyllum* Thomson, 1880, p. 467.

REMARKS. The name is inadmissible, since such a change as that proposed by Thomson is invalid under Article XXXII of the International Rules of Zoological Nomenclature.

CENTROPHYLLUM as *Centrephyllum* [sic] Thomson, 1880, p. 227.

GENOLECTOTYPE (see Gregory, 1917, pp. 223, 230):—*C. subcentricum* Thomson, 1880, p. 230, pl. i, figs. 1, 1a. Lower Carboniferous, Viséan: Thirdpart Quarry, near Beith, Ayrshire, Scotland.

REMARKS. Thomson, 1883, p. 467, more correctly spelt the name *Centrophyllum*, while in 1901, p. 484, he changed the name to *Centrolamellum*, which is invalid under Article XXXII of the International Rules of Zoological Nomenclature. Hill, 1938[2], p. 65, considers *Centrophyllum* a synonym of *Dibunophyllum* Thomson & Nicholson.

CENTROPHYLLUM de Verneuil. Lindström, 1883[3], p. 7, states "This name is annotated as given to a Coral from Spain, but I cannot find the reference." Neither can we, and the name seems to have had no legal existence.

CENTROTUS Lindström MS. in Thomson & Nicholson, 1876[1], p. 128—preoccupied by *Centrotus* Fabricius, 1803, p. 16, for a Recent hemipteron.

GENOHOLOTYPE (by monotypy):—*Cyathaxonia dalmani* Edwards & Haime, 1851, p. 322, pl. i, fig. 6. Silurian: Isle of Gotland, Sweden.

REMARKS. Nicholson & Etheridge, 1878, p. 81, state that they are not aware of the name having been published; and the genus is not mentioned by Lindström, 1883[3]. See *Dalmanophyllum* Lang & Smith.

CERATOPHYLLUM Eaton, 1832, *fide* Agassiz, 1845, p. 1.

REMARKS. Eaton, 1832, p. 136, gives *Cyathophyllum* and *Ceratites*, but no *Ceratophyllum*. Agassiz probably combined these names into *Ceratophyllum* in error for one or the other. Thus *Ceratophyllum* Eaton has never existed as a genus.

CERATOPHYLLUM Gürich, 1896, p. 163.

GENOHOLOTYPE (by author's original designation):—*C. typus* Gürich, 1896, p. 163. Middle Devonian, Stinkkalken: Szydlowek, Poland, nomen novum for *Cyathophyllum ceratites* Goldfuss (partim) Frech, 1886, p. 178, pl. xvii, figs. 4–8, 12, 14–16=*Cyathophyllum ceratites* Goldfuss (partim), 1826, p. 57, pl. xvii, figs. 2a–f, 2h, 2g (?), (non 2i, 2k). Middle Devonian: Bensberg and the Eifel, Germany.

REMARKS. Gürich, 1909, p. 101, pl. xxxi, fig. 3, makes no reference to *C. typus*, but describes that species as *Ceratophyllum ceratites* (Goldfuss).

CERATOPORA Grabau, 1899, p. 414.
GENOHOLOTYPE (by author's original designation):—*C. jacksoni* Grabau, 1899, p. 415, pl. i, fig. 1, pl. ii, figs. 6–10. Middle Devonian, Lower Hamilton Shales: Eighteen Mile Creek and its vicinity, Erie County, New York; and Marcellus Shales and Limestone: Lancaster, Erie County, New York, U.S.A.

CERIASTER Lindström, 1883[2], p. 61.
GENOHOLOTYPE (by monotypy):—*C. calamites* Lindström, 1883[2], p. 61, pl. v, figs. 2–5. Silurian: Tshau-tiën, north-eastern Szechuan, China.
REMARKS. The coral is a Columnariid.

CERIOPHYLLUM as *Keriophyllum* [sic] Wedekind, 1923, pp. 27, 34.
GENOHOLOTYPE (by monotypy):—*C. heiligensteini* Wedekind, 1923, p. 34, text-figs. 3a, b on p. 27. Lower Middle Devonian, Niedereher Schichten: Heiligenstein, Eifel district, Germany.
REMARKS. The genus is a synonym of *Heliophyllum* Hall MS. in Dana.

CETOPHYLLUM as *Ketophyllum* [sic] Wedekind, 1927, pp. 48, 51.
GENOHOLOTYPE (by author's original designation, explanation of pl. x, figs. 5, 6):—*C. elegantulum* Wedekind, 1927, p. 55, pl. x, figs. 5–6, 8–11, pl. xiii, figs. 3–4. Silurian, Omphymenmergel: Djupvik, Isle of Gotland, Sweden.
REMARKS. See *Heterelasma* Ehlers.

CHAETETES Fischer von Waldheim MS. in Eichwald, 1829, p. 197.
GENOLECTOTYPE (see Oakley, 1936, p. 441):—*C. cylindraceus* Fischer von Waldheim MS. in Eichwald, 1829, p. 197. Lower Carboniferous: neighbourhood of Moscow, Russia.
REMARKS. *C. cylindraceus* is at least congeneric, if not conspecific, with *C. radians* Fischer von Waldheim, 1830, explanation of pl. xxxvi, fig. 3, and 1837, p. 160, pl. xxxvi, fig. 3 (referred to in the text as fig. 6), from the same neighbourhood =*Favosites septosus* Fleming, 1828, p. 529. Edwards & Haime's choice (1850, p. lxi) of *C. radians* as genolectotype is invalid, since it is not one of the genosyntypes. See Smith & Lang, 1930, pp. 188–191; and also *Chaetetides* Strand.

CHAETETIDES Strand, 1928, p. 34, new name for *Chaetetes* Fischer von Waldheim, 1837, p. 159, in case this should prove to be different from *Chaetetes* Fischer von Waldheim MS. in Eichwald, 1829, p. 197—see above. We do not consider *Chaetetides* necessary.

CHAETITES Michelin, 1844, p. 112—errore pro *Chaetetes* Fischer von Waldheim MS. in Eichwald.

CHARACTOPHYLLUM Simpson, 1900, p. 209.
GENOHOLOTYPE (by author's original designation):—*Campophyllum nanum* Hall & Whitfield, 1872, p. 14, and 1873, p. 232=*Charactophyllum nanum* (Hall & Whitfield) Simpson, 1900, p. 209, text-fig. 28 on p. 210. Upper Devonian, Hackberry Stage: Rockford, Iowa, U.S.A.

REMARKS. Simpson wrongly gives the horizon as "Lower Carboniferous" and the state as "Indiana," and also erroneously refers to *Campophyllum* as *Camptophyllum* [sic].

CHLAMYDOPHYLLUM Počta, 1902, p. 134.

GENOHOLOTYPE (by monotypy):—*C. obscurum* Počta, 1902, p. 136, pl. cxiv, fig. 2, pl. cxv, figs. 2–5. Lower Devonian, Koněprusy Limestones, *f*: Koněprusy, Bohemia.

CHONAXIS Edwards & Haime, 1851, pp. 173, 446.

GENOHOLOTYPE (by monotypy):—*C. verneuili* Edwards & Haime, 1851, p. 446, pl. xi, figs. 3, 3a. Carboniferous: Tver, Russia.

CHONOPHYLLOIDES Kiär, 1897, pp. 17, 26, 75—nomen nudum.

REMARKS. Kiär refers to "*Chonophylloides rarotabulatus* gen. et sp. nov.," but the species is a nomen nudum.

CHONOPHYLLUM Edwards & Haime, 1850, p. lxix.

GENOHOLOTYPE (by authors' original designation):—*Cyathophyllum perfoliatum* Goldfuss MS. in Edwards & Haime, 1850, p. lxix, a nomen novum for *Cyathophyllum plicatum* Goldfuss, 1826, p. 59, pl. xviii, fig. 5 (non p. 54, pl. xv, fig. 12). [Silurian]: [Isle of Gotland], Sweden.

REMARKS. Edwards & Haime, 1851, p. 405, explain that Goldfuss's type is in the Museum at Bonn, and bears the name *perfoliatum* which Goldfuss gave it on noticing his error of having named two species of *Cyathophyllum* as *plicatum* in his "Petrefacta."

CHONOSTEGITES Edwards & Haime, 1851, pp. 156, 299.

GENOHOLOTYPE (by monotypy):—*C. clappi* Edwards & Haime, 1851, p. 299, pl. xiv, figs. 4, 4a. Drift ex Devonian: Dayton, Ohio, U.S.A.

REMARKS. See *Haimeophyllum* Billings.

CIONELASMA as *Kionelasma* [sic] Simpson, 1900, p. 207.

GENOHOLOTYPE (by author's original designation):—*Streptelasma mammiferum* Hall, 1882, p. 21, and 1884, p. 425. Middle Devonian, Onondaga Limestone: Falls of the Ohio, U.S.A.

REMARKS. We do not consider that the genotype of *Cionelasma* differs in any essential respect from *Streptelasma corniculum* Hall, genotype of *Streptelasma* Hall.

CIONODENDRON Benson & Smith, 1923, p. 165.

GENOHOLOTYPE (by author's original designation):—*C. columen* Benson & Smith, 1923, p. 165, pl. viii, figs. 4, 5, pl. ix, figs. 4, 7. Lower Carboniferous, Burindi Series (=Viséan): Slaughterhouse Creek, near Gravesend, New South Wales, Australia.

CIONOPHYLLUM as *Kionophyllum* [sic] Chi, 1931, p. 39.

GENOHOLOTYPE (by author's original designation):—*C. dibunum* Chi, 1931, p. 40, pl. iii, figs. 1a, b. Middle Carboniferous, Weiningian, Laokanchai Limestone: Pass south of Kuanyintung, Lipohsien, Kueichow, China.

CIRCOPHYLLUM Lang & Smith, 1939, p. 153.

GENOHOLOTYPE (genoholotype of *Rhysodes* Smith & Tremberth by authors' original designation):—*Rhysodes samsugnensis* Smith & Tremberth, 1927, p. 311, pl. vii, figs. 8–11. Upper Silurian, Horizon *f* of Lindström (=Ludlow): Samsugn in Othem, Isle of Gotland, Sweden.

REMARKS. The name *Circophyllum* was proposed by Lang & Smith to replace *Rhysodes* Smith & Tremberth, which is pre-occupied.

CLADOCHONUS McCoy, 1847, p. 227.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. lxxvi):—*C. tenuicollis* McCoy, 1847, p. 227, pl. xi, fig. 8. Lower Carboniferous (Burindi), Dunvegan Shale: Dunvegan (on the Paterson River), New South Wales, Australia.

REMARKS. Girty, 1925, p. 23, overlooking Edwards & Haime, wrongly selects *C. crassus* (McCoy)=*Jania crassa* McCoy, 1844, p. 197, pl. xxvii, fig. 4, as genotype. According to Hill & Smyth, 1938, p. 125, *Monilipora* Nicholson & Etheridge is a synonym of *Cladochonus*. Girty's argument to that effect is invalidated by his wrong designation of the genotype. See *Pyrgia* Edwards & Haime.

*CLADOCORA Ehrenberg, 1834, p. 309, a Recent hexacoral.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. xxxviii):—*C. laevigata* Ehrenberg, 1834, p. 310. Recent: Red Sea.

REMARKS. Edwards & Haime quote as type species of *Cladocora*, "*Cladocora cespitosa* [sic] Milne Edw. and J. Haime; *Madrepora flexuosa* Solander and Ellis, tab. xxxi, figs. 5, 6." But *Cladocora laevigata* Ehrenberg=*Madrepora flexuosa* Ellis and Solander partim, 1786, p. 151, pl. xxxi, figs. 5, 6 only =*Madrepora caespitosa* Linnaeus, 1767[1], p. 1278=*Madrepora flexuosa* Pallas, 1766, p. 315 partim (non *Madrepora flexuosa* Linnaeus, 1758, p. 796, and 1767[2], p. 1278, which is a Silurian fossil). Various early writers on corals use *Cladocora* for Palaeozoic species, e.g., Lonsdale, 1839, p. 692, pl. xv *bis*, fig. 9.

CLADOPORA Hall, 1851, p. 400, and 1852[1], p. 137.

GENOLECTOTYPE (see Miller, 1889, p. 178):—*C. seriata* Hall, 1851, p. 400, and 1852[1], p. 137. Silurian, Niagaran: Lockport and elsewhere, New York, U.S.A.

REMARKS. The genotype is a species of *Coenites* Eichwald.

CLEISTOPORA Nicholson, 1888, p. 150.

GENOHOLOTYPE (by author's original designation):—*Michelinia geometrica* Edwards & Haime, 1851, p. 252, pl. xvii, figs. 3, 3a. Lower Devonian: Viré and Loué, Sarthe, France.

CLISAXOPHYLLUM Grabau in Chi—see *Clisiaxophyllum* Grabau in Chi.

CLISIAXOPHYLLUM as *Clisaxophyllum* [sic] Grabau in Chi, 1931, p. 23.

GENOHOLOTYPE (by author's original designation):—*Cyathophyllum coniseptum* Keyserling, 1846, p. 164, pl. ii, fig. 2. Carboniferous: Berge Sopljussa, Petschoraland, Russia.

REMARKS. Grabau in Chi, 1931, p. 24, also proposed the name *Streptophyllum*, q.v., for certain simple Silurian species originally referred to *Clisiophyllum* (as interpreted by Edwards & Haime), and retained the more specialised Carboniferous species in *Clisiophyllum* or (which is inadmissible) referred them to *Clisiaxophyllum*. *C. coniseptum* is a species of *Clisiophyllum* Dana or of *Dibunophyllum* Thomson & Nicholson.

Yü, 1933 [1934], p. 6, erroneously states not only that the genus is new in that work, but also (p. 107) that the genotype is *Clisiophyllum bowerbanki* Edwards & Haime, 1851, p. 411.

CLISIOPHYLLITES Löweneck, 1932, p. 98.

GENOHOLOTYPE (by monotypy):—*C. tianschanensis* Löweneck, 1932, p. 98= *Cyathophyllum murchisoni* Edwards & Haime emend. Vaughan, Gröber, 1909, p. 382, text-fig. 1 on p. 383. Carboniferous [high Viséan]: Limestones of the Chonochai Valley and of the Mukur-mutu Valley, Tianshan, China.

REMARKS. *Cyathophyllum murchisoni* (Edwards & Haime) is the genotype of *Palaeosmilia* Edwards & Haime, q.v., and therefore *Clisiophyllites* is an absolute synonym of *Palaeosmilia*.

CLISIOPHYLLOIDES Dybowski, 1873[1], p. 340—a genus caelebs, with name and diagnosis only, no species being mentioned.

CLISIOPHYLLUM Dana, 1846, p. 187, 1848, p. 361, and 1849, explanation of pl. xxvi, figs, 6, 7, 7a (a generic diagnosis is given, but no species is named either in the text or in the explanation of the plates; nor can the figures of the plate (November, 1849) be specifically determined. McCoy, 1849 (January), was the first to refer described species to the genus).

GENOLECTOTYPE (see Dingwall, 1926, p. 14):—*C. keyserlingi* McCoy, 1849, p. 2, and 1851, p. 94, pl. iii c, figs. 4, 4a. Carboniferous Limestone: Derbyshire, England.

REMARKS. McCoy himself, 1849, p. 2, and 1851, p. 94, remarks of *C. keyserlingi*, "This highly typical species of Mr. Dana's American genus *Clisiophyllum* . . . .," though this can hardly be construed as designation of the genotype. Dingwall, 1926, p. 14, definitely refers to the same species as genotype.

COCCOSERIS Eichwald, 1855[2], p. 2, explanation of pl. xxv, and 1860, p. 442.

GENOSYNTYPES:—

(1) *C. ungerni* Eichwald, 1855[2], p. 2, explanation of pl. xxv, figs. 4a–c, and 1860, p. 442=*Lophoseris ungerni* Eichwald, 1855[1], p. 466. [Ordovician], Orthoceras Limestone: Lyckholm, near Hapsal; and Dolomitic Limestone with *Platystrophia lynx*: Kirna and Borkholm, Esthonia.

(2) *C. approximata* Eichwald, 1855[2], p. 2, explanation of pl. xxv, figs. 5a, b, and

1860, p. 444=*Lophoseris approximata* Eichwald, 1855[1], p. 466. [Ordovician], Dolomitic Limestone with *Platystrophia lynx*: Kirna, Esthonia.

GENOLECTOTYPE (here chosen):—*L. ungerni* Eichwald.

REMARKS. See *Protaraea* Edwards & Haime.

CODONOPHYLLUM as *Kodonophyllum* [sic] Wedekind, 1927 (September), pp. 34, 35.

GENOHOLOTYPE (by author's original designation):—*Streptelasma milne-edwardsi* Dybowski, 1873[3], p. 409, pl. xiii, figs. 5–12. Upper Silurian: Island of Karlsö, Gotland, Sweden=*Madrepora truncata* Linnaeus, 1758, p. 795=*M. composita . . . cylindraceo-concavis* Linnaeus, 1745, p. 22, figs. x, n. 3, and 1749, p. 93, pl. iv, figs. x, n. 3. [Silurian]: Isle of Gotland, Sweden.

REMARKS. See *Patrophontes* Lang & Smith, which is a synonym of *Codonophyllum*.

COELOPHYLLUM C. F. Römer, 1883, p. 409—pre-occupied by *Coelophyllum* Scudder, 1875, p. 263, for an orthopterous insect, and re-named *Cyathopaedium* by Schlüter, 1889, p. 263, q.v.

GENOHOLOTYPE (by monotypy):—*Calophyllum paucitabulatum* Schlüter, 1880[1], p. 52, figured Schlüter, 1881[4], p. 76, pl. vi, figs. 1–4, and 1881[6], p. 190, pl. ii, figs. 1–4. Middle Devonian, Stringocephalenkalk: Bergisch-Gladbach, Rhenish Prussia, Germany.

COELOSTYLIS Lindström, 1880, p. 34.

GENOHOLOTYPE (by monotypy):—*C. törnquisti* Lindström, 1880, p. 34, pl. i, fig. 11=*Cyathaxonia*? [sic] *törnquisti* Lindström, 1873[2], p. 25. Ordovician, 2a: Dalarne, Fjecka, Sweden=*Streptelasma europaeum* Römer, Törnquist, 1867, p. 19. Ordovician, Sweden (non *Streptelasma europaeum* C. F. Römer, 1861, p. 61, pl. iv, figs. 1a–f. Ordovician, Lyckholm-Schichten, 2a: Sudewitz, Silesia; and "schwarzen Silurischen Kalk, Halbinsel Herö bei Porsgrund," Norway).

COENITES Eichwald, 1829, p. 179.

GENOSYNTYPES:—

(1) *C. juniperinus* Eichwald, 1829, p. 179. Drift: Lithuania.

(2) *C. intertextus* Eichwald, 1829, p. 179, pl. ii, fig. 16. Drift: Vilna, Russia.

GENOLECTOTYPE (see Miller, 1897, p. 727):—*C. juniperinus* Eichwald.

REMARKS. Edwards & Haime, 1851, p. 157, give *C. intertextus* as "exemple" of the genus. See *Cladopora* Hall and *Limaria* Steininger.

COLEOPHYLLUM Hall, 1883[1], p. 317.

GENOLECTOTYPE (see Miller, 1889, p. 179):—*C. romingeri* Hall, 1883[1], p. 317, pl. xxiv, figs. 8, 9. Middle Devonian, Corniferous [Onondaga] Limestone: Falls of the Ohio, Kentucky, U.S.A.

REMARKS. Hall also recorded the genus as new in 1884, p. 463.

COLUMNARIA Goldfuss, 1826, p. 72.

GENOLECTOTYPE (see McCoy, 1849, p. 121):—*C. sulcata* Goldfuss, 1826, p. 72, pl. xxiv, figs. 9a–c, and 1833, p. 245. Middle Devonian: Paffrath, near Bensberg, Germany.

REMARKS. Edwards & Haime, 1851, p. 308, cited *C. alveolata* as type-species, and in this they have been followed by most subsequent authors. Goldfuss on p. 245 of the "Petrefacta Germaniae" under "Zusätze und Verbesserungen," which was not published until 1833, stated that "*Columnaria sulcata* ist *Cyathophyllum quadrigeminum*. Vergl. pag. 59. tab. 19. fig. 1." This is not the case, as sections of the types clearly show. See *Lithostroma* Rafinesque MS. in Brongniart; also Lang & Smith, 1935[1], pp. 426–430.

COLUMNOPORA Nicholson, 1874[2], p. 253.

GENOHOLOTYPE (by monotypy):—*C. cribriformis* Nicholson, 1874[2], p. 253, text-figs. 1a–c on p. 254. Ordovician, Hudson River Group: River Credit, Ontario, Canada; Cincinnati Group, Hudson River Formation: near Cincinnati, Ohio, U.S.A.

REMARKS. Lindström, 1883[3], p. 8, and Cox, 1936, p. 1, consider *Columnopora* to be a synonym of *Calapoecia* Billings.

COMBOPHYLLUM Edwards & Haime, 1850, p. lxvii.

GENOHOLOTYPE (by authors' original designation):—*C. osismorum* Edwards & Haime, 1850, p. lxvii, described and figured by Edwards & Haime, 1851, p. 359, pl. ii, figs. 2–2c. Devonian: Brest, France.

CONOPHYLLUM Hall, 1851, p. 399, and 1852[1], p. 114.

GENOHOLOTYPE (by monotypy):—*C. niagarense* Hall, 1851, p. 399, and 1852[1], p. 114, pl. xxxii, figs. 4a–n. Silurian, lower part of the Niagara Limestone: Lockport, New York, U.S.A.

REMARKS. Miller, 1889, p. 180, erroneously says that *Conophyllum* is "syn. for *Chonophyllum*," for it is founded on a different genosyntype and the name is derived from a different word. Rominger, 1876 [?1877], p. 138, followed by Bassler, 1915, p. 270, puts it under *Cystiphyllum* Lonsdale, which it seems to us to be.

CONOPOTERIUM Winchell, 1865, p. 110.

GENOHOLOTYPE (by monotypy):—*C. effusum* Winchell, 1865, p. 111. Carboniferous, Mississippian, Marshall Group, Lithographic Limestone: Clarksville, Missouri, U.S.A.

REMARKS. Etheridge & Nicholson, 1878, p. 217, compare this with *Palaeacis* Haime.

CONOPTERIUM Scudder, 1882, p. 84, errore pro *Conopoterium* Winchell, 1866.

CORWENIA Smith & Ryder, 1926, p. 149.

GENOHOLOTYPE (by authors' original designation):—*Lonsdaleia rugosa* McCoy, 1849, p. 13, and 1851, p. 105, pl. 111B, figs. 6, 6a–c. Lower Carboniferous [zone D2]: Hafod-y-Calch, Corwen, Merionethshire, Wales.

REMARKS. See Smith, 1916[1], pp. 264–268, pl. xxi, figs. 3–16, for figures of the genotype.

*COSCINOPORA Goldfuss, 1826, p. 30.

GENOLECTOTYPE (here chosen):—*C. infundibuliformis* Goldfuss, 1826, p. 30, pl. ix, fig. 16, pl. xxx, fig. 10. Upper Cretaceous, Greensand and Chalk: Westphalia, Germany.

REMARKS. Of the four genosyntypes, three, including the genolectotype, are Mesozoic sponges. The fourth, *C. placenta* Goldfuss, 1826, p. 31, pl. ix, fig. 18, from the ? Devonian [sic], Eifel district, Germany, is possibly a coral.

COSMIOLITHUS Lindström, 1899, p. 68.

GENOSYNTYPES:—

(1) *C. ornatus* Lindström, 1899, p. 68, pl. v, figs. 4–11. Silurian, [Valentian and Lower Salopian], strata *a* (red layers), *b*, *c*, *d*, near Visby, Isle of Gotland, and stratum *c* at Fröjel and Mölners in Klinte, Isle of Gotland, Sweden.

(2) *C. halysitoides* Lindström, 1899, p. 69, pl. v, figs. 12–18. Silurian [Valentian], stratum *a*, at Norderstrand, near Visby, and in a detached specimen near Roma myr, Isle of Gotland, Sweden.

GENOLECTOTYPE (here chosen):—*C. ornatus* Lindström.

COSMOPHYLLUM Vollbrecht, 1922, p. 17—pre-occupied by *Cosmophyllum* Blanchard, 1851[2], p. 50, for a Recent orthopterous insect. No species is mentioned by Vollbrecht, although a full description of the genus is given.

GENOLECTOTYPE (see Wedekind, 1925, p. 39):—*C. dachsbergi* Vollbrecht MS. Wedekind, 1923, p. 28. Middle part of the Middle Devonian, zone of *C. dachsbergi*: Gerolstein, Eifel district, Germany.

REMARKS. See also Wedekind & Vollbrecht, 1931, explanation of pl. xli, figs. 1–4, pl. xlii, figs. 1–6, pl. xliv, fig. 9a. The first species referred to the genus were *C. dachsbergi* and *C. geigeri* Wedekind, both of which were briefly described in Wedekind, 1923, p. 28. These thus became the genosyntypes.

The genus is probably synonymous with *Mesophylloides* Wedekind and with *Arcophyllum* Markov.

CRASPEDOPHYLLUM Dybowski, 1873[1], p. 339—name and diagnosis only, no species being mentioned.

GENOHOLOTYPE (by monotypy—first species later referred to the genus):—*C. americanum* Dybowski, 1873[4], p. 155, pl. vi, figs. 1–6. Devonian: Columbus, Ohio, U.S.A. = *Heliophyllum colligatum* Billings, 1859[1], p. 126. Devonian, Corniferous Limestone, Rama's Farm, near Port Colborne, Ontario, Canada.

REMARKS. *Heliophyllum colligatum* is congeneric with *Diphyphyllum archiaci* Billings, genotype of *Crepidophyllum*, and with *Eridophyllum seriale* Edwards & Haime, genotype of *Eridophyllum* Edwards & Haime.

CRATEROPHYLLUM Foerste, 1909, p. 101 (non *Craterophyllum* Barbour, q.v., nec *Craterophyllum* Tolmachev, q.v.).

GENOSYNTYPES:—

(1) *Chonophyllum* (*Craterophyllum*) *vulcanius* Foerste, 1909, p. 101, pl. i, fig. 12. Silurian, Brownsport Bed: half a mile west of Hope Creek, Tennessee, U.S.A.

(2) *Chonophyllum canadense* (Billings) Lambe, 1901, p. 185, pl. xvii, figs. 1,

1a–c, 2, 3, 3a, 3b, 4=*Ptychophyllum canadense* Billings, 1862, p. 107. Silurian, Division IV of the Anticosti Group: South-west Point, Anticosti, Canada.

GENOLECTOTYPE (here chosen):—*Chonophyllum* (*Craterophyllum*) *vulcanius* Foerste.

CRATEROPHYLLUM Barbour, 1911, p. 38—pre-occupied by *Craterophyllum* Foerste, 1909, p. 101, for a Silurian coral.

GENOHOLOTYPE (by monotypy):—*C. verticillatum* Barbour, 1911, p. 38, pls. i–iv. Carboniferous, probably the horizon of the Oread Limestone: Nehawka, Cass Country, Nebraska, U.S.A.

REMARKS. We re-name this genus *Barbouria*, q.v.

CRATEROPHYLLUM Tolmachev, 1931, pp. 344, 614—pre-occupied by *Craterophyllum* Foerste, 1909, p. 101, for a Silurian coral, and re-named *Cypellophyllum* by Tolmachev, 1933, p. 287.

GENOHOLOTYPE (by monotypy):—*C. abyssum* Tolmachev, 1931, pp. 345, 614, pl. xxii, figs. 9, 10. Lower Carboniferous: Nijnaïa Terss, neighbourhood of Kusnetzk, Russia.

CRAVENIA Hudson, 1928, p. 252.

GENOHOLOTYPE (by author's original designation):—*C. rhytoides* Hudson, 1928, p. 252, pl. i, figs. 1, 1a–g, and text-figs. 1, 2 on p. 253. Lower Carboniferous, C2 zone: Haw Crag, Lower Quarry, near Bell Busk, Yorkshire, and other localities in the Craven Lowlands, Yorkshire, England.

CREPIDOPHYLLUM Nicholson & Thomson, 1876[2], p. 149.

GENOLECTOTYPE (see Miller, 1889, p. 180):—*Diphyphyllum archiaci* Billings, 1860, p. 260, text-fig. 8 on p. 260. Devonian, Hamilton Shales: Bosanquet, Canada West [Ontario].

REMARKS. *Diphyphyllum archiaci* is congeneric with *Eridophyllum seriale* Edwards & Haime, genotype of *Eridophyllum* Edwards & Haime, and with *Heliophyllum colligatum* Billings = *Craspedophyllum americanum*, genotype of *Craspedophyllum* Dybowski.

CRINOPHYLLUM Jones, 1932, p. 61.

GENOHOLOTYPE (by author's original designation):—*Spongophyllum enorme* Etheridge, 1913, p. 35, pls. iv–vii. Upper Silurian: Escarpment north-east of Boonoo Ponds Creek, Hatton's Corner, Yass River, near Yass, New South Wales, Australia.

REMARKS. This is an absolute synonym of *Yassia* Jones.

CRYPTOPHYLLUM Carruthers, 1919, p. 436.

GENOHOLOTYPE (by monotypy):—*C. hibernicum* Carruthers, 1919, p. 440, pl. xi, figs. 1–6, text-figs. 1–6 on p. 436. Carboniferous, Lower Calp Shales, C2–S1: Bundoran, Donegal Bay, Ireland; Upper Tournaisian, Z2–C1: Stackpole Quay, and near Blucks Pool, Pembrokeshire, Wales; Shales above the Middle Skateraw Limestone, D2–D3: East Barns Quarry, Dunbar, Scotland; and Shales above the Acre Limestone, D2–D3: Ancroft, Northumberland, England.

CYATHOTHAELAEA Ludwig, 1865, pp. 139, 142, 152—see R. Ludwig, 1865–1866, under "Literature."

CYATHAXONELLA Stuckenberg, 1895, pp. 25, 186.
GENOHOLOTYPE (by monotypy):—*C. gracilis* Stuckenberg, 1895, pp. 26, 186, pl. v, fig. 6, pl. vi, fig. 5, pl. vii, fig. 8. Carboniferous, Unteren Kohlenkalk: Ural Mountains, Russia.

CYATHAXONIA Michelin, 1847, p. 257.
GENOLECTOTYPE (see Edwards & Haime, 1850, p. lxv):—*C. cornu* Michelin, 1847, p. 258, pl. lix, figs. 9a, b. Lower Carboniferous [Tournaisian]: Tournai, Belgium.

CYATHOCARINIA Soshkina, 1928, p. 376, as sub-genus of *Cyathaxonia.*
GENOSYNTYPES:—
(1) *C. tuberculata* Soshkina, 1928, p. 376, text-fig. 17 on p. 377. Lower Permian: River Uiluich, Northern Ural Mountains, Russia.
(2) *C. multituberculata* Soshkina, 1928, p. 378, text-fig. 18 on p. 378. Lower Permian: River Uiluich, Northern Ural Mountains, Russia.
GENOLECTOTYPE (here chosen):—*C. tuberculata* Soshkina.

CYATHOCLISIA Dingwall, 1926, p. 12.
GENOHOLOTYPE (by author's original designation):—*C. tabernaculum* Dingwall, 1926, p. 14, pls. i–iii. Lower Carboniferous, horizon γ: Burrington Combe, Somerset, England=*Cyathophyllum θ* A. Vaughan, 1905, p. 274, pl. xxiii, fig. 2. Lower Carboniferous, horizon γ: Clevedon, Somerset, England.

CYATHODACTYLIA Ludwig, 1865, pp. 143, 160–162—see R. Ludwig, 1865–1866, under "Literature."

CYATHOPAEDIUM Schlüter, 1889, p. 263, nom. nov. for *Coelophyllum* C. F. Römer, 1883, p. 409, q.v.
GENOHOLOTYPE (by monotypy):—*Calophyllum paucitabulatum* Schlüter, 1880[1], p. 52, 1881[4], p. 76, pl. vi, figs. 1–4, and 1881[6], p. 190, pl. ii, figs. 1–4. Middle Devonian, Stringocephalenkalk: Hebborn, near Bergisch-Gladbach, Rhenish Prussia, Germany.

*CYATHOPHORA Michelin, 1843, p. 104, a Mesozoic hexacoral.
GENOHOLOTYPE (by monotypy):—*C. richardi* Michelin, 1843, p. 104, pl. xxvi, figs. 1a, b. Jurassic: Agey and Is-sur-Thil, Côte-d'Or, and Saint Mihiel, Meuse, France.
REMARKS. See *Cyathopora* Owen.

CYATHOPHYLLOIDES Dybowski, 1873[1], pp. 334, 379.
GENOLECTOTYPE (see Sherzer, 1891, p. 278):—*C. kassariensis* Dybowski, 1873[1], p. 379. [Ordovician], Z5=Zone 5 of Schmidt, 1858: Island of Kassar, off the Island of Dagö, Esthonia.

REMARKS. Dybowski considers *Cyathophylloides kassariensis* to be *Columnaria sulcata* Goldfuss, Lonsdale, 1845[1], p. 601, pl. ix, figs. 1, 1a. "Lower Silurian" = Ordovician: Habsal, near Reval, Esthonia (non *Columnaria sulcata* Goldfuss, 1826, p. 72, pl. xxiv, figs. 7a–c, which is another species of *Columnaria*).

CYATHOPHYLLUM Goldfuss, 1826, p. 54.

GENOLECTOTYPE (see Dana, 1846, p. 183, and 1848, p. 355):—*C. dianthus* Goldfuss, 1826, p. 54, pl. xv, fig. 13, pl. xvi, figs. 1a–e. Middle Devonian: Eifel district, Germany.

REMARKS. Lang & Smith, 1927, p. 454, argued that Dana's choice was invalid on the ground that he did not refer to Goldfuss in mentioning *C. dianthus*, but referred instead to some Silurian corals figured by Lonsdale, which had nothing to do with Goldfuss's species. We think, however, that they were wrong because they did not take into account that Dana, as the rest of the work in question shows, was familiar with Goldfuss's "Petrefacta Germaniae," and that when he quoted "the *C. dianthus*" he meant *C. dianthus* of Goldfuss, 1826, p. 54. Goldfuss's specimens were obtained from the Devonian of the Eifel district of Germany.

Other authors have chosen other species as genolectotype, but their choices are all invalid. Wedekind, 1924, p. 35, considered *C. dianthus* Lonsdale non Goldfuss as genolectotype, but we reject this, as *C. dianthus* Lonsdale is not a genosyntype of *Cyathophyllum*.

CYATHOPORA Owen, 1844, p. 69, errore pro *Cyathophora* Michelin.

REMARKS. Although it might be argued that *Cyathopora* Owen is not a mistake for *Cyathophora* but was erected as a new genus by him, nevertheless, in view of the absence of any definite evidence to that effect, and as Owen was not in the habit of creating new genera, we prefer to regard Owen's term as an error for *Cyathophora* (a Jurassic hexacoral genus). Lindström, 1883[3], p. 8, holds this view, and he also states that Meek & Worthen considered the name to have been used by inadvertence. R. S. Bassler (*in litt.*) also accepts this as the correct interpretation. If, however, it be held that *Cyathopora* Owen is a new genus, then its genoholotype (by monotypy) is *C. iowensis* Owen, 1844, p. 69, pl. xi, from the "Carboniferous Limestone" [Devonian, Hamilton Group], Iowa, U.S.A., and the name replaces *Striatopora* Hall.

CYATHOPSIS d'Orbigny, 1849[2], p. 12.

GENOHOLOTYPE (by monotypy):—*Caninia cornu-bovis* Michelin, 1846, p. 185, pl. xlvii, figs. 8a, b. Lower Carboniferous [Tournaisian]: Tournai, Belgium.

REMARKS. Michelin also gives Ferques, near Boulogne, France, i.e., Upper Devonian, as one of the localities for the species. The coral figured, however, is a Tournaisian form conspecific with *Caninia cornucopiae*—genotype of *Caninia* Michelin—and is here taken as lectotype of *Caninia cornu-bovis*. *Cyathopsis* thus becomes a synonym of *Caninia*.

CYCLOCYATHUS Duncan & Thomson, 1867[1], p. 1—pre-occupied by *Cyclocyathus* Edwards & Haime, 1850, p. xiv, a genus of hexacorals, and altered by Duncan & Thomson, 1867[2], to *Cyclophyllum*, q.v.

*CYCLOLITES Lamarck, 1801, p. 369, a Cretaceous hexacoral.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. xlvi):—*C. ellipticus* Lamarck, 1801, p. 369=*Porpite elliptique*. . . . Guettard, 1770, vol. iii, p. 452, pl. xxi, figs. 17, 18. [Cretaceous]: neighbourhood of Perpignan, France.

REMARKS. The genosyntypes include *Cyclolites numismalis* Lamarck, 1801, p. 369 =*Madrepora porpita* Linnaeus, 1767[2], p. 1272=*Madrepora . . . convexa* Linnaeus, 1745, p. 19, figs. va, b. Found on the shore [derived from the Silurian (Visby Marls=Llandoverian)]: Isle of Gotland, Sweden (see *Porpites* Schlotheim). Another genosyntype, *C. hemispherica* Lamarck=*Fungiformis alius*. . . . *Bononiam* Scheuchzer, 1723, p. 77, pl. xiii, fig. 1, is a species of foraminifera from the drift of Bologna, Italy.

CYCLOPHYLLUM Duncan & Thomson, 1867[2], p. 328—substituted for *Cyclocyathus* Duncan & Thomson, 1867[1].

GENOLECTOTYPE (see Gregory, 1917, pp. 222, 223):—*Aulophyllum bowerbanki* Edwards & Haime, 1851, p. 414, and 1852, p. 189, pl. xxxviii, fig. 1. Lower Carboniferous: Ireland.

REMARKS. *A. bowerbanki* is conspecific with *Clisiophyllum prolapsum* McCoy, the genotype of *Aulophyllum* Edwards & Haime, q.v., and hence *Cyclophyllum* is a synonym of *Aulophyllum*. See Smith, 1913, p. 56.

"*CYCLOSITES* Rafinesq. (*i.* Wern. Mem. I . . .) *v. Favosites fibrosus*," Bronn, 1848, p. 378.

REMARKS. Scudder, 1882, p. 95, obviously quoting from Bronn, repeats the reference. Lindström, 1883[3], p. 8, says "*Cyclosites* Rafinesque. In the Memoirs of the Wernerian Society according to Bronn=*Favosites*, but I cannot find that R. published anything there." Sherborn, 1925, p. 1740, also cannot trace the reference. The genus seems to have had no existence.

CYLICOPORA Steininger, 1849, p. 17.

GENOHOLOTYPE (by monotypy):—*C. fasciculata* Steininger, 1849, p. 17. Middle Devonian: Gerolstein, Eifel district, Germany.

REMARKS. See, however, Edwards & Haime, 1851, p. 427.

CYLINDRIPORA Eichwald—see *Cylindropora* Eichwald.

CYLINDROHELIUM Grabau, 1910, p. 102.

GENOHOLOTYPE (by author's original designation):—*C. profundum* Grabau, 1910, p. 102, pl. xi, figs. 4, 5, 6. Silurian: Monroe formation, Lucas Dolomite: Silica quarry, near Sylvania, Ohio; and Gibraltar quarry, Michigan, U.S.A.

CYLINDROPHYLLUM Simpson, 1900, p. 217 (non *Cylindrophyllum* Yabe & Hayasaka, 1915, p. 90, q.v.).

GENOHOLOTYPE (by author's original designation):—*C. elongatum* Simpson, 1900, p. 217, text-fig. 42 on p. 217. Middle Devonian, Onondaga Limestone: Clarksville, Albany County, New York, U.S.A.

REMARKS. *C. elongatum* is a species of *Disphyllum* de Fromentel with dissepiments as in *D. goldfussi* Geinitz, but has simple, often complete tabulae. We consider *Cylindrophyllum* to be synonymous with *Disphyllum*.

Simpson mentions no locality, but the locality quoted above is that of the type specimen in the New York State Museum.

CYLINDROPHYLLUM Yabe & Hayasaka, 1915, p. 90—pre-occupied by *Cylindrophyllum* Simpson, 1900, p. 217, for a Devonian Rugose Coral.

GENOHOLOTYPE (by authors' original designation):—*C. simplex* Yabe & Hayasaka, 1915, p. 90, and 1920, p. 133, pl. vi, figs. 3a, b. Devonian: neighbourhood of Hung-Kuo-Chi, Ta-Kuan-ting, Chao-tung-fu, Province of Yun-nan, China.

REMARKS. We re-name this genus *Yabeia*, q.v.

CYLINDROPORA as *Cylindripora* [sic] Eichwald, 1829, p. 190.

GENOHOLOTYPE (by monotypy):—*C. serpuloides* Eichwald, 1829, p. 190, pl. iii, fig. 5, and 1860, p. 513. [?Silurian] Drift: near Vilna, Esthonia.

REMARKS. This may be a Polyzoan.

CYMATELASMA Hill & Butler, 1936, p. 516.

GENOHOLOTYPE (by authors' original designation):—*C. corniculum* Hill & Butler, 1936, p. 518, pl. xvi, figs. 2–8. Silurian, Woolhope Limestone: Woolhope, Herefordshire, and May Hill, Gloucestershire, England.

CYMATEOPHYLLUM Thomson, 1883, p. 471, errore pro *Cymatiophyllum* Thomson.

CYMATIOPHYLLUM as *Kurnatiophyllum* [sic] Thomson, 1875[1], p. 273, and *Kumatiophyllum* [sic] Thomson, 1876[1], p. 166, and 1877, p. 250.

GENOLECTOTYPE (see Gregory, 1917, pp. 223, 229):—*C. concentricum* Thomson, 1875[1], p. 273 (name only), and 1877, p. 251, pl. i, figs. 1, 1a. Lower Carboniferous, Viséan: Langside Quarry, two miles east of Beith, Ayrshire, Scotland; Bowertrapping, Dalry, Ayrshire, Scotland; and Brockley, five miles south of Lesmahagow, Lanarkshire, Scotland.

REMARKS. Thomson, 1878, p. 166, himself emended the erroneous transliteration he had used in 1875[1], 1876[1], 1877. Hill, 1938[2], p. 65, considers *Cymatiophyllum* to be a synonym of *Dibunophyllum* Thomson & Nicholson, q.v.

CYMATOPHYLLUM Thomson, 1901, p. 483, errore pro *Cymatiophyllum* Thomson.

CYPELLOPHYLLUM Tolmachev, 1933, p. 287—new name for *Craterophyllum* Tolmachev, 1931, q.v.

GENOHOLOTYPE (genoholotype of *Craterophyllum* Tolmachev by monotypy):—*Craterophyllum abyssum* Tolmachev, 1931, pp. 345, 614, pl. xxii, figs. 9, 10. Lower Carboniferous: Nijnaïa Terss, neighbourhood of Kusnetzk, Russia.

CYPHOPHYLLUM as *Kyphophyllum* [sic] Wedekind, 1927, pp. 19, 20.
GENOHOLOTYPE (by author's original designation, explanation of pl. ii, figs. 7–10):—*C. lindstromi* Wedekind, 1927, p. 21, pl. ii, figs. 7–10, pl. xxvii, figs. 1–3. Silurian, Dino-Chonophyllumstufe: north of Stenkyrke huk (lower marls), and Visby, Brunsberg betning, Isle of Gotland, Sweden.
REMARKS. The coral has the same internal structure as *Madrepora stellaris* Linnaeus, 1758, p. 795, the genotype of *Strombodes* Schweigger, but is simple.

CYRTIDOPHYLLUM Lindström, 1899 (index), errore pro *Cyrtophyllum* Lindström.

CYRTOPHYLLUM Lindström, 1882[1], p. 17.
GENOHOLOTYPE (by monotypy):—*C. densum* Lindström, 1882[1], p. 17, figs. 1, 2 on plate. Silurian: various localities in Middle Tunguska, Russia.

CYSTELASMA Miller, 1891, p. 12, and 1892[2], p. 622.
GENOHOLOTYPE (by author's original designation):—*C. lanesvillense* Miller, 1892[2], p. 623, pl. i, figs. 15, 16. Lower Carboniferous, Warsaw Group: Lanesville, Indiana, U.S.A.

CYSTEOPHYLLUM Meek, 1867, p. 80—errore pro *Cystiphyllum* Lonsdale, 1839.

CYSTIDENDRON Schindewolf, 1927, p. 149, as sub-genus of *Lithostrotion*.
GENOHOLOTYPE (by author's original designation):—*C. kleffense* Schindewolf, 1927, p. 149, text-fig. in table 2 on p. 149. Carboniferous, Kohlenkalk: Kleff, Germany.
REMARKS. This is a phaceloid *Lithostrotion* Fleming.

CYSTIPHORA as *Cystophora* [sic] Yabe & Hayasaka, 1916, p. 70.
GENOHOLOTYPE (by authors' original designation):—*C. manchurica* Yabe & Hayasaka, 1916, p. 71. Uppermost Carboniferous, *Schwagerina* Stage: Honkei-ko (Ponnhsihu), South Manchuria.
REMARKS. The locality is spelt Ponhsipu on p. 69.

CYSTIPHORASTRAEA as *Cystophorastraea* [sic] Dobrolyubova, 1935[1], pp. 10, 12, and 1935[2], pp. 12, 32, 45 (as sub-genus of *Lonsdaleiastraea*).
GENOHOLOTYPE (by author's original designation):—*Phillipsastraea molli* Stuckenberg, 1888, p. 25, pl. ii, figs. 16–21. Upper division of the Carboniferous Limestone: Kiselipha, on the River Pakhra, and several other localities in Moscow Province, Russia (non *Hydnophora molli* Fischer von Waldheim, 1837, p. 157, pl. xxxiv, fig. 4).
REMARKS. The genus is a synonym of *Polythecalis* Yabe & Hayasaka, i.e., of *Lonsdaleia* McCoy, in our view.

CYSTIPHOROLITES Miller, 1889, p. 183, proposed to replace *Vesicularia* Rominger, q.v.

GENOHOLOTYPE (by author's original designation):—*Vesicularia major* Rominger, 1876 [?1877], p. 135, pl. xlix, right-hand fig., upper row. Silurian, Niagara Group: Point Detour and Drummond Island, Lake Huron, Michigan, U.S.A.
REMARKS. *C. major* is a species of *Ptychophyllum* Edwards & Haime.

CYSTIPHRENTIS as *Cystophrentis* [sic] Yü, 1931, 18.
GENOHOLOTYPE (by author's original designation):—*C. kolaohoensis* Yü, 1931, p. 19, text-figs. 1a–c on p. 20, and 1937, p. 5, pl. i, figs. 1–8. Lower Carboniferous, Kolaohoan Series: south of Kolaoho, west of Maochai, Tushan-hsien, Kueichow Province, and Wanloshan, Hsiang-hsiang-hsien, Hunan Province, China.

CYSTIPHYLLOIDES Yoh, 1937, pp. 50, 53, as sub-genus of *Atelophyllum.*
GENOSYNTYPES:—
(1) *C. kwangsiensis* Yoh, 1937, p. 53, pl. v, figs. 1–4. Middle Devonian: Hill of Tung-kan-ling, State of Hsiang-hsien, E. Kwangsi, and State of Peiniu-hsien, S. Kwangsi, China.
(2) *C. tungkanlingensis* Yoh, 1937, pp. 50, 54, pl. v, figs. 5a, b. Middle Devonian: Tung-kan-ling, State of Hsiang-hsien, E. Kwangsi, China.
GENOLECTOTYPE (here chosen):—*C. kwangsiensis* Yoh.
REMARKS. The second species is stated by Yoh, p. 54, to be transitional between *C. kwangsiensis* and *Atelophyllum peimaense* Yoh.

CYSTIPHYLLUM Lonsdale, 1839, p. 691.
GENOLECTOTYPE (see Edwards & Haime, 1850, p. lxxii):—*C. siluriense* Lonsdale, 1839, p. 691, pl. xvi bis, figs. 1, 1a, non 2. Silurian, Wenlock Limestone: Dudley, Worcestershire, England.
REMARKS. *C. siluriense* Lonsdale includes two corals. Edwards & Haime expressly exclude fig. 2, which they describe later as *Omphyma murchisoni* in 1851, p. 402, and 1855, p. 289, pl. lxvii, figs. 3, 3a, b. Gürich, 1909, p. 103, wrongly refers to *C. vesiculosum* Goldfuss as the genolectotype. See *Conophyllum* Hall.

CYSTISTROTION Schindewolf, 1927, p. 149, as sub-genus of *Lithostrotion.*
GENOHOLOTYPE (by author's original designation):—*C. paeckelmanni* Schindewolf, 1927, p. 149. Carboniferous: quarry on the Schälk-Letmathe road, Germany.
REMARKS. This is a cerioid *Lithostrotion* Fleming.

CYSTOPHORA Yabe & Hayasaka—see *Cystiphora* Yabe & Hayasaka.

CYSTOPHORASTRAEA Dobrolyubova—see *Cystiphorastraea* Dobrolyubova.

CYSTOPHRENTIS Yü—see *Cystiphrentis* Yü.

CYSTISTYLUS as *Cystostylus* [sic] Whitfield, 1880, p. 63, and 1882, p. 273.
GENOHOLOTYPE (by author's original designation):—*C. typicus* Whitfield, 1880, p. 64, and 1882, p. 274, pl. xiv, figs. 8–9. Silurian, Niagara Formation, Lower Coral Beds: Cato, Monitowoc County, Wisconsin; Silurian, Niagara Formation, Upper Coral Beds: Sturgeon Bay, Wisconsin, U.S.A.

CYSTOSTYLUS Whitfield—see *Cystistylus* Whitfield.

DALMANOPHYLLUM Lang & Smith, 1939, p. 153.
GENOHOLOTYPE (by authors' original designation):—*Cyathaxonia dalmani* Edwards & Haime, 1851, p. 322, pl. i, fig. 6. Upper Silurian: Isle of Gotland, Sweden.
REMARKS. According to Thomson & Nicholson, 1876[1], p. 128, Lindström had proposed the name *Centrotus* for *C. dalmani*, but he does not appear to have published this (Nicholson & Etheridge, 1878, p. 81). In any case that name is pre-occupied by *Centrotus* Fabricius, 1803, p. 16, for a Recent hemipteron. See also *Tyria* Scheffen.

DANAIA Scudder, 1882, p. 101—errore pro *Dania* Edwards & Haime.

DANIA Edwards & Haime, 1849[2], p. 261.
GENOHOLOTYPE (by monotypy):—*D. huronica* Edwards & Haime, 1849[2], p. 261, described and figured Edwards & Haime, 1851, p. 275, pl. xviii, figs. 2, 2a, b. Silurian: Drummond Island, Lake Huron, U.S.A.

DARWINIA Dybowski, 1873[1], pp. 336, 404—pre-occupied by *Darwinia* Bate, 1857, p. 141, for a crustacean.
GENOHOLOTYPE (by monotypy):—*D. speciosa* Dybowski, 1873[1], p. 404, pl. ii, figs. 8, 8a—two varieties, namely var. *major* Dybowski, 1873[1], p. 404, pl. ii, fig. 8, and var. *minor* Dybowski, 1873[1], p. 406, pl. ii, fig. 8a. Z.6 = Zone 6 of Schmidt, 1858 [Silurian: Kattentak, Esthonia].
REMARKS. We choose the specimen figured by Dybowski, pl. ii, fig. 8, as lectotype of *D. speciosa*=*Strombodes diffluens* Schmidt, 1858, p. 232, a species of *Arachniophyllum* Dana.

DECAPHYLLUM Frech, 1885[1], p. 69.
GENOHOLOTYPE (by monotypy):—*D. koeneni* Frech, 1885[1], p. 70, pl. viii, figs. 6, 6a–c. Upper Devonian, [Frasnian]: Grund, Harz Mountains, Germany.

DENDROPORA Michelin, 1846, p. 187.
GENOHOLOTYPE (by monotypy):—*D. explicita* Michelin, 1846, p. 187, pl. xlviii, fig. 6. ? Devonian: Ferques and Marquise, near Boulogne, France.
REMARKS. The horizon of the genoholotype is uncertain, while the genus may be a Polyzoan, although Bassler, 1935, does not mention it.

DENDROZOUM Fuchs, 1915, p. 5.
GENOHOLOTYPE (by monotypy):—*D. rhenanum* Fuchs, 1915, p. 5, pl. i, figs. 4, 4a= *Neues Favositidengenus* Fuchs, 1899, p. 53. Lower Devonian, Hunsrückschiefer, Bornicher Horizon: south of Balledillsweg, near Bornich; Unter Coblenzschichten, Eeger Horizon: Eeg, near Bornich, Loreleigend, Germany.
REMARKS. The genus is closely allied to, if not synonymous with, *Pleurodictyum* Goldfuss.

DENSIPHYLLUM Dybowski, 1873[1], pp. 335, 392.
GENOLECTOTYPE (see Sherzer, 1891, p. 284):—*D. thomsoni* Dybowski, 1873[1],

p. 392, pl. ii, figs. 2a–d. [Silurian, Z.4=Zone 4 of Schmidt, 1858]: Herküll, Esthonia.

REMARKS. Lindström, 1873[2], p. 32, unwarrantedly emended *Densiphyllum* to *Pycnophyllum* as wrongly formed. *Densiphyllum* was used by Thomson for Carboniferous corals, and Thomson has been followed in this by Carruthers and others.

DEPASOPHYLLUM Grabau, 1922, p. 21 (nomen nudum), and 1936, p. 43.

GENOHOLOTYPE (by author's original designation):—*D. adnetum* Grabau, 1936, p. 44. Middle Devonian, Traverse Group of Michigan, and Onondaga Limestone of New York, U.S.A.

REMARKS. Grabau, 1936, p. 43 (footnote), says, "This name was originally proposed in 1915 in a manuscript on the Devonian corals of Michigan submitted to the Survey of that state but never published. In it also the genus Depasophyllum and its typical species were described. These descriptions were printed in 1927 by the National University of Peking, in the Syllabus of Palaeontology, pp. 212–214." The latter work, however, has not been published—see Chi, 1931, p. 25. Yü, 1931, pp. 10–11, 18, also mentions the genus, but gives it no status.

DESMIDOPORA Nicholson, 1886[2], p. 289.

GENOHOLOTYPE (by monotypy):—*D. alveolaris* Nicholson, 1886[2], p. 291, pl. viii, figs. 1–8. Silurian, Wenlock Limestone: Dudley, Worcestershire, England.

REMARKS. Nicholson, 1886[1], p. 83, at first thought the species was a stromatoporoid and designated it *Labechia alveolaris*, but the name was then a nomen nudum. See also Fritz, 1939.

DESMOPHYLLUM Wedekind, 1927, pp. 75, 76—pre-occupied by *Desmophyllum* Ehrenberg, 1834, p. 299, for a Recent hexacoral.

GENOHOLOTYPE (by author's original designation):—*D. clarkei* Wedekind, 1927, pp. 76, 77, pl. xxviii, figs. 11–13. Upper Silurian, Horizon IV of Hedström: Fårö, Isle of Gotland, Sweden.

REMARKS. The genus is probably synonymous with *Phaulactis* Ryder.

DIALYTOPHYLLUM Amanshauser MS. emend. Wedekind, 1925, p. 40.

GENOHOLOTYPE (by Wedekind's designation, 1925, p. 40):—*D. complicatum* Amanshauser MS. in Wedekind, 1925, pp. 40, 43, text-fig. 63 on p. 41 (pl. x). Upper Middle Devonian: Genna, near Letmathe, Eifel district, Germany.

DIBUNOPHYLLUM Thomson & Nicholson, 1876[1], p. 457. (See also Nicholson & Thomson, 1876[1], p. 127, and Thomson, 1876[2], p. 83. The date of publication of the generic name is discussed on p. 222.)

GENOLECTOTYPE (see Gregory, 1917, pp. 222, 232):—*D. muirheadi* Thomson & Nicholson, 1876[1], p. 462, pl. xxiv, figs. 3, 3a, pl. xxv, figs. 4–5. Lower Carboniferous, Viséan: Gateside, Beith, Ayrshire, Scotland.

REMARKS. Hill, 1938[2], p. 65, considers that *Rhodophyllum* Thomson, *Aspidiophyllum* Thomson, *Cymatiophyllum* Thomson, *Dibunophyllum* Thomson &

Nicholson, *Albertia* Thomson, *Histiophyllum* Thomson, and *Centrophyllum* Thomson are all synonymous, but advocates the retention of the name *Dibunophyllum*, because it is so well known, although *Rhodophyllum* has priority over the others. This would necessitate the suspension of the International Rules of Nomenclature in this case. She is in error in holding that, if Thomson, 1876[2], antedates Thomson & Nicholson, 1876[1], then *Dibunophyllum* Thomson, 1876[2], p. 83, is a nomen nudum, for the genus is well described there: it could be held to be a genus caelebs. See also *Arachniophyllum* Smyth.

DICTUOPHYLLIA de Blainville—see *Dictyophyllia* de Blainville.

*DICTYOPHYLLIA as *Dictuophyllia* [sic] de Blainville, 1830, p. 325, and 1834, p. 359, a Mesozoic hexacoral.

REMARKS. McCoy, 1849, p. 134, records under *Dictyophyllia* a Carboniferous species he had previously described (1844, p. 191) as *Dictuophyllia* [sic] *antiqua*=*Vaughania antiqua* (McCoy). The spelling of the generic name had been previously corrected by Fischer von Waldheim, 1843, p. 663.

DICTYOPORA Steininger, 1849, p. 10, non *Dictyopora* MacGillivray, 1869, p. 139, a Recent polyzoan, nec *Dictyopora* Gerth, q.v.

GENOHOLOTYPE (by monotypy):—*D. reticulata* Steininger, 1849, p. 10. Devonian: Gerolstein, Eifel district, Germany.

REMARKS. This is possibly a polyzoan.

DICTYOPORA Gerth, 1921, p. 123—pre-occupied by *Dictyopora* Steininger, 1849, p. 10, q.v.

GENOHOLOTYPE (by monotypy):—*D. incrustans* Gerth, 1921, p. 123, pl. cxl, fig. 25. Permian: Hatu Dame, Timor.

REMARKS. This genus needs further investigation.

DICTYOSTROMA Nicholson, 1875[2], p. 254.

GENOHOLOTYPE (by author's original designation):—*D. undulatum* Nicholson, 1875[2], p. 254, pl. xxiv, figs. 6, 6a–c. Silurian, Niagara Group: Louisville, Kentucky, U.S.A.

REMARKS. Nicholson, 1875[2], p. 254, originally considered the genus to be a stromatoporoid "nearly allied to *Stromatopora*," but in 1892, p. 232, he revised his opinion, and stated that it "is certainly not referable to the Stromatoporoids," although "its precise affinities are not absolutely clear." Meanwhile, Rominger, 1886, p. 55, considered it to be an *Alveolites*. Bassler (in Parks, 1908, p. 231) held that the genus appears to be related to *Coenites* and *Limaria*, and in 1915, p. 428, he stated "*Dictyostroma* is not a stromatoporoid, but is a coral closely allied if not identical with *Coenites*." See *Milleria* Davis.

DIGONOPHYLLUM Wedekind, 1923, p. 27.

GENOHOLOTYPE (by monotypy):—*D. schulzi* Wedekind, 1923, p. 27, text-fig. 1. Lower Middle Devonian, Nohner Kalk: Nohn, Eifel district, Germany.

REMARKS. See also Vollbrecht, 1926, p. 268, pl. xiii, figs. 2a, b.

DINOPHYLLUM Lindström, 1882[1], p. 21.

GENOHOLOTYPE (by monotypy):—*D. involutum* Lindström, 1882[1], p. 21, and described and figured by Lindström, 1896[2], p. 38, pl. vii, figs. 87–98, and text-fig. on p. 39. Silurian: Olenek, Siberia.

REMARKS. *D. involutum* is, in our opinion, *Clisiophyllum hisingeri* Edwards & Haime, 1851, p. 410, pl. vii, figs. 5, 5a. Lindström, it is true, states, 1882[1], p. 21, and 1896[2], p. 39, that, according to the original label, Edwards & Haime's figured specimen in the Musée d'Histoire Naturelle, Paris, is from the Devonian of Ferques, near Boulogne, France. One of us [S. S] has examined this type, and considers it to be a Gotland form and to be the same as *D. involutum*. In any case Edwards & Haime had Swedish material in mind, and established the species on syntypes in the Musée d'Histoire Naturelle, Paris, and in de Verneuil's collection (now at the École des Mines, Paris).

DIORYCHOPORA Davis, 1887, explanation of pl. lxxiv.

GENOHOLOTYPE (by monotypy):—*D. tenuis* Davis, 1887, explanation of pl. lxxiv, fig. 6. Silurian, Upper Niagaran white clay: near Louisville, Kentucky, U.S.A.

REMARKS. The figure given by Davis is so poor, that the zoological position of the genus must remain uncertain for the time being. The name is spelt *Diorrychopora* [sic] on p. vi of the Index to Plates.

DIPHYPHYLLUM Lonsdale, 1845[1], p. 622.

GENOHOLOTYPE (by monotypy):—*D. concinnum* Lonsdale, 1845[1], p. 624, pl. A, figs. 4, 4a–c. Carboniferous: Hill of Tchirief, Kamensk, on the River Issetz, eastern side of the Ural Mountains, Russia.

REMARKS. Smith & Lang, 1930, p. 179, consider *Diphyphyllum* is only a genomorph of *Lithostrotion* Fleming. See *Donophyllum* Fomichev.

DIPLASTRAEA Eichwald, 1854, p. 83.

GENOSYNTYPES:—

(1) *D. confluens* Eichwald, 1854, p. 84. [Silurian], Grauwackenschichten: Wesenberg, Germany.

(2) *D. diffluens* Eichwald, 1854, p. 84, and 1855[2], p. 3, pl. xxx, fig. 11. [Silurian], Grauwackenschichten: Wesenberg, Germany.

GENOLECTOTYPE (here chosen):—*D. diffluens* Eichwald.

REMARKS. See *Protaraea* Edwards & Haime.

DIPLOCHONE Frech, 1886, p. 219.

GENOHOLOTYPE (by author's original designation):—*D. striata* Frech, 1886, p. 220, pl. xix, fig. 2, text-fig. on p. 220. Devonian, Givetian, uppermost Stringocephalus beds: Martenberg, near Adorf, and Blanken, near Brilon, Rhineland, Germany.

DIPLOËPORA Quenstedt, 1879, p. 148.

GENOHOLOTYPE (by monotypy):—*Heliolites grayi* Edwards & Haime, 1851, p. 217, and 1854, p. 252, pl. lviii, figs. 1, 1a. Silurian, Wenlock Limestone: Walsall Canal, Staffordshire, England.

DIPLOPHYLLUM Hall, 1851, p. 399, and 1852[1], p. 115.

GENOHOLOTYPE (by monotypy):—*D. caespitosum* Hall, 1851, p. 399, and 1852[1], p. 116, pl. xxxiii, figs. 1a–r. Silurian, lower part of Niagara Limestone: Lockport and other localities, New York, U.S.A.

REMARKS. *Diplophyllum* is considered by Smith & Lang, 1931, p. 86, to be a genomorph of *Acervularia* Schweigger.

DIPTEROPHYLLUM C. F. Römer, 1883, pp. 371, 372.

GENOHOLOTYPE (by monotypy):—*Zaphrentis glans* White, 1862, p. 32=*Hadrophyllum glans* White, 1883[2], p. 156, pl. xxxix, figs. 5a, b. Carboniferous, Mississippian, Upper Burlington Limestone: Burlington, Iowa, U.S.A.

DISCOPHYLLUM Hall, 1847, p. 277.

GENOHOLOTYPE (by monotypy):—*D. peltatum* Hall, 1847, p. 277, pl. lxxv, fig. 3. Ordovician, Hudson River Group: below Troy, New York, U.S.A.

REMARKS. Probably a plant—see Bassler, 1915, p. 1427.

DISOPHYLLUM Tolmachev, 1924, pp. 316, xi, and 1931, pp. 341, 613.

GENOLECTOTYPE (see Tolmachev, 1933, p. 287):—*D. symmetricum* Tolmachev, 1924, p. xi, pl. xviii, figs. 21, 22; 1931, pp. 344, 613. Lower Carboniferous: Nijnaïa Terss, neighbourhood of Kusnetzk, Russia.

DISPHYLLUM de Fromentel, 1861, p. 302.

GENOLECTOTYPE (see Lang & Smith, 1934, p. 80):—*Cyathophyllum caespitosum* Goldfuss, 1826, p. 60, pl. xix, fig. 2b only—see Lang & Smith, 1935[2], p. 545. Middle Devonian: Eifel district, Germany.

REMARKS. Geinitz, 1846, p. 569, considered that both *Lithodendron caespitosum* Goldfuss, 1826, p. 44, pl. xiii, fig. 4, and *Cyathophyllum caespitosum* Goldfuss, 1826, p. 60, pl. xix, figs. 2a–d, to be congeneric, and therefore re-named the latter *Cladocora goldfussi*. So long as the species mentioned are regarded as congeneric, the genolectotype of *Disphyllum* must be called *D. goldfussi* Geinitz. See also Lang & Smith, 1935[2], pp. 544, 568, and also see under *Phacelophyllum* Gürich.

DITOECHELASMA as *Ditoecholasma* [sic] Simpson, 1900, p. 200.

GENOHOLOTYPE (by author's original designation):—*D. fanninganum* (Safford) Simpson, 1900, p. 200, text-figs. 5, 6 on p. 201=*Petraia fanningana* Safford, 1869, p. 320, pl. v, figs. 3a–g. Lower Devonian, Helderbergian: Perry County, Tennessee, U.S.A.

DITOECHOLASMA Simpson—see *Ditoechelasma* Simpson.

DIVERSOPHYLLUM Sloss, 1939, p. 65.

GENOHOLOTYPE (by author's original designation):—*Zaphrentis traversensis* Winchell, 1866, p. 90. Devonian, Hamilton Series, Middle Traverse Beds: [Petoskey], Michigan, U.S.A.

REMARKS. See also Sloss, 1939, p. 66, pl. xi, figs. 13–23, pl. xii, fig. 22.

DOCOPHYLLUM as *Dokophyllum* [sic] Wedekind, 1927, pp. 48, 49.
GENOHOLOTYPE (by author's original designation, explanation of pl. ix, figs. 13–15):—*D. annulatum* Wedekind, 1927, p. 49, pl. ix, figs. 13–15, pl. xiv, fig. 1. Silurian, Llandoverian, Horizon II of Hedström: North of Kneippbyn, Visby, Isle of Gotland, Sweden.

DOHMOPHYLLUM Wedekind, 1923, pp. 29, 35.
GENOHOLOTYPE (by monotypy):—*D. involutum* Wedekind, 1923, text-fig. 7 on p. 30. Lower Middle Devonian: Auburg, near Gerolstein, Eifel district, Germany.
REMARKS. See also Wedekind, 1924, p. 76, text-fig. 108 on p. 75.

DOKOPHYLLUM Wedekind—see *Docophyllum* Wedekind.

DONACOPHYLLUM Dybowski, 1873[1], p. 336, and 1874, p. 460.
GENOSYNTYPES:—
(1) *D. middendorffi* Dybowski, 1874, p. 460, pl. iii, figs. 6a, b. Ordovician, Z.3 =Zone 3 of Schmidt, 1858: Herkül, Esthonia.
(2) *D. losseni* Dybowski, 1874, p. 464, pl. iv, figs. 6a, b. Silurian, Z.4=Zone 4 of Schmidt, 1858: Grossenhof, Isle of Dagö, Esthonia.
(3) *D. schrencki* Dybowski, 1874, p. 465, pl. iv, fig. 8. Silurian, Z.5=Zone 5 of Schmidt, 1858: Pükhat, Esthonia.
GENOLECTOTYPE (here chosen):—*D. middendorffi* Dybowski.
REMARKS. *D. middendorffi* is almost certainly a species of *Strombodes* Schweigger.

DONOPHYLLUM Fomichev, 1939, p. 59.
GENOSYNTYPES:—
(1) *D. reticulatum* Fomichev, 1939, p. 59, pl. ix. figs. 2a–c. Middle Carboniferous, horizon C_2^5: Donetz Basin, U.S.S.R.
(2) *D. diphyphylloidium* Fomichev, 1939, p. 59, pl. ix, figs. 3a, b. Middle Carboniferous, horizon C_2^5: Donetz Basin, U.S.S.R.
GENOLECTOTYPE (here chosen):—*D. diphyphylloidium* Fomichev.
REMARKS. The genus is synonymous with *Diphyphyllum* Lonsdale.

DORLODOTIA Salée, 1920, pp. 145, 149.
GENOHOLOTYPE (by monotypy):—*D. briarti* Salée, 1920, p. 150, text-figs. 5, 6 on p. 151. Carboniferous, Viséan: Sambre à Landelies, Belgium.

DRYMOPORA Davis, 1887, explanation of pls. lxx, lxxi, lxxii and lxxiv.
GENOLECTOTYPE (see Bassler, 1915, p. 1252):—*D. fascicularis* Davis, 1887, explanation of pl. lxx, figs. 1–4, pl. lxxiv, fig. 7. Silurian, Upper Niagaran: near Louisville, Kentucky, U.S.A.; Lower Devonian: near Louisville, and Falls of the Ohio, Kentucky, U.S.A.
REMARKS. Bassler, 1915, p. 463, considers this to be a sub-genus of *Syringopora* Goldfuss.

DUNCANELLA Nicholson, 1874[1], p. 333.
GENOHOLOTYPE (by monotypy):—*D. borealis* Nicholson, 1874[1], p. 334, text-figs. a–e on p. 334. Upper Silurian, Niagara Group: Indiana, U.S.A.

DUNCANIA de Koninck, 1871, p. 322 (nomen nudum), and 1872, p. 107 (non *Duncania* Pourtalès, 1874, p. 44, a Recent hexacoral, nec *Duncania* Bayle, 1879, p. 35, a gastropod).

GENOHOLOTYPE (by author's original designation):—*D. simplex* de Koninck, 1871, p. 322 (nomen nudum), and 1872, p. 107, pl. xi, figs. 1, 1a, b. Carboniferous, "gîte calaminaire" and Carboniferous Limestone: Dos, near Engis, Belgium.

DUPLOPHYLLUM Koker, 1924, p. 21.

GENOHOLOTYPE (by monotypy):—*D. zaphrentoides* (Etheridge) Koker, 1924, p. 22, pl. viii, figs. 2, 2a, text-fig. 13 on p. 21. Permian: Wesleo, Timor—which Koker considers=*Cyathophyllum*? [sic] *zaphrentoides* Etheridge, 1891, p. 21, pl. x, figs. 4–6. "Probably Carboniferous": Binge Berry, Rouchel Brook, Hunter River, County Durham, New South Wales, Australia.

DYBOWSKIA Wedekind, 1927, p. 18—pre-occupied by *Dybowskia* Dall, 1876, p. 46, for a Recent mollusc, besides by later instances.

GENOHOLOTYPE (by author's original designation):—*D. prima* Wedekind, 1927, p. 18, pl. i, figs. 10, 11. Silurian, Llandoverian: Stavnestangen, Tyrifjord, Norway.

REMARKS. We re-name this genus *Brachyelasma*, q.v.

DYCTYOPHYLLIA [sic] McCoy, Pictet, 1857, p. 441—pro *Dictuophyllia* [sic] McCoy—see *Dictyophyllia* de Blainville.

ECHIGOPHYLLUM Yabe & Hayasaka MS. in Hayasaka, 1924, p. 20.

GENOHOLOTYPE (by monotypy):—*E. giganteum* Yabe & Hayasaka MS. in Hayasaka, 1924, p. 20, pl. iv, figs. 5, 6, 7 (numbered on the plate 9, 10, 11 respectively, but, in the copy seen, corrected by Hayasaka). Anthracolithic, Carboniferous: Ômi-gawa Valley, and Gorge of the Tômi-gawa, Ômi-Mura, Echigo, Honshui, Japan.

REMARKS. See also Hayasaka, 1939, p. 539, who merges the genus in *Amygdalophyllum* Dun & Benson.

EDAPHOPHYLLUM Simpson, 1900, p. 221.

GENOHOLOTYPE (by author's original designation):—*Cystiphyllum bipartitum* Hall, 1882, p. 55, and 1884, p. 459. Middle Devonian: Corniferous [Onondaga] Limestone: Falls of the Ohio, U.S.A.

REMARKS. Neither Hall nor Simpson figures the genotype, but the latter compares the genus with *Coleophyllum* Hall.

ELASMOPHYLLUM Hall, 1882, p. 38, and 1884, p. 442.

GENOHOLOTYPE (by monotypy):—*E. attenuatum* Hall, 1882, p. 38, and 1884, p. 442. Middle Devonian, Corniferous [Onondaga] Limestone: New York, U.S.A., and Canada.

ELLIPSOCYATHUS d'Orbigny, 1849[2], p. 12.

GENOHOLOTYPE (by monotypy):—*Anthophyllum bicostatum* Goldfuss, 1826, p. 46, pl. xiii, fig. 12. Devonian: Heisterstein, Eifel district, Germany.

REMARKS. In 1849[2], p. 12, d'Orbigny says, "Les deux espèces connues sont des étages murchisonien et dévonien," but he names only one species and gives no further indication of any other. The genus must, therefore, be held to be monotypic. In 1850, p. 48, he includes *E. grandis* d'Orbigny from the Silurian [Wenlock Limestone] of Dudley, Worcestershire, England.

EMMONSIA Edwards & Haime, 1851, pp. 152, 246.

GENOLECTOTYPE (see C. F. Römer, 1883, p. 425):—*E. hemispherica* (Yandell & Shumard) Edwards & Haime, 1851, p. 247. Silurian: Springfield, Ohio, and Perry County, Tennessee, U.S.A.; Devonian: Caledonia, New York State, Charleston Landing, Falls of the Ohio, Island of Mackinaw, Lake Michigan, Williamsville, Erie County, New York State, U.S.A.; Contejo de Castrillon near Avile, Spain; Torquay, Devonshire, England. (Edwards & Haime intended *E. hemispherica* to be the genotype, but they did not formally designate it as such.)

REMARKS. *E. hemispherica* Edwards & Haime includes more than one form, embracing:—

(*a*) *Favosites alveolaris* (Goldfuss) Hall, 1843, p. 158, text-fig. 61; 1, 1a on p. 157, and No. 31, figs. 1, 1a on p. 28 of tables (non *Calamopora alveolaris* Goldfuss, 1826, p. 72, pl. xxvi, figs. 1a–c, and renamed *Favosites emmonsi* by Hall, 1876 [?1877], explanation of pl. ix, and by Rominger, 1876 [?1877], p. 27.*)

(*b*) *Favosites hemispherica* Yandell & Shumard, 1847, p. 7†=partim, at least, *Calamopora hemispherica* Troost, 1840, p. 72 (non *Favosites hemispherica* Kutorga, 1837, p. 40, pl. viii, fig. 5, pl. ix, fig. 3, but partim, at least, *Favosites turbinatum* Billings, 1859[1], p. 109, and 1860, p. 259).

Fenton & Fenton, 1936, pp. 27, 35, have further shown that Hall's *Favosites emmonsi* embraces two forms, one with squamulae to which they restrict the name *Emmonsia emmonsi* (Hall, 1876 [?1877], pl. ix, figs. 1, 2, pl. xii, fig. 5), and the other with perfect and complete tabulae to which they give the name *Favosites halli* (Hall, 1876 [?1877], pl. ix, figs. 3–6, pl. xi, fig. 5, pl. xii, fig. 4, and Rominger, 1876 [?1877], pl. vii, figs. 1, 2); and they designate *E. emmonsi* (Hall) restricted Fenton & Fenton (lectotype from the Middle Devonian, Onondaga Limestone: Falls of the Ohio, U.S.A.) as genolectotype of *Emmonsia* Edwards & Haime.

ENALLOPHYLLUM Greene, 1901, p. 54.

GENOHOLOTYPE (by author's original designation):—*E. grabaui* Greene, 1901, p. 54, pl. xx, figs. 8–18. Lower Carboniferous, St. Louis group, Warsaw division: Lanesville, Indiana, U.S.A.

ENDAMPLEXUS Koker—see *Endoamplexus* Koker.

ENDOAMPLEXUS as *Endamplexus* [sic] Koker, 1924, p. 31.

GENOHOLOTYPE (by monotypy):—*E. dentatus* Koker, 1924, p. 32, pl. v, fig. 12, pl. vi, figs. 2–4, 9, pl. viii, fig. 3, text-figs. 18, 19 on p. 32. Permian: Wesleo, Timor.

* See Hall, 1876 [?1877], and Rominger, 1876 [?1877], under Literature.

† Yandell & Shumard's syntypes may not be all conspecific.

ENDOPHYLLUM Edwards & Haime, 1851, pp. 167, 393.
GENOLECTOTYPE (see Schlüter, 1889, pp. 308–309):—*E. bowerbanki* Edwards & Haime, 1851, pp. 168, 394, and figured by Edwards & Haime, 1853, pl. liii, fig. 1. Devonian [?Frasnian]: Barton Quarry, near Torquay, England.

ENDOTHECIUM Koker, 1924, p. 22.
GENOSYNTYPES:—
(1) *E. decipiens* Koker, 1924, p. 23, pl. iii, fig. 6, pl. ix, fig. 3, text-fig. 14 on p. 23. Permian: Wesleo, Timor.
(2) *E. apertum* Koker, 1924, p. 24, pl. iii, figs. 5, 5a. Permian: Wesleo, Timor.
GENOLECTOTYPE (here chosen):—*E. apertum* Koker.

ENTELEIOPHYLLUM Walther, 1928, p. 103.
GENOSYNTYPES:—
(1) *E. sundwigense* Walther, 1928, p. 105, text-fig. 1 on p. 105. Upper Middle Devonian: Sundwig, 27 km. south-east of Dortmund, and Hemer, 26 km. south-east of Dortmund, Germany.
(2) *E. hagenense* Walther, 1928, p. 106. Upper Middle Devonian: Hagen [lat. 51° 22′ N., 7° 27′ E.], Germany.
GENOLECTOTYPE (here chosen):—*E. sundwigense* Walther.

ENTELOPHYLLUM Wedekind, 1927 (September), p. 22.
GENOSYNTYPES:—
(1) *E. rhizophorum* Wedekind, 1927, p. 23, pl. xxx, fig. 17. Upper Silurian: Östergarn, Isle of Gotland, Sweden.
(2) *E. roemeri* Wedekind, 1927, p. 23, pl. xxx, figs. 9–16. Upper Silurian: Lau backar, Isle of Gotland, Sweden.
(3) *E. proliferum* (Dybowski) Wedekind, 1927, p. 23, pl. xxix, figs. 21, 22= *Cyathophyllum proliferum* partim Dybowski, 1874, p. 445, pl. iii, figs. 2, 2a (non 2b). Silurian: Karlsö, Isle of Gotland, Sweden.
(4) *E. proliferum* (Dybowski) var. *elongata* Wedekind, 1927, p. 23, pl. xxix, figs. 23–25, 33. Upper Silurian, Lau Schichten: Lau backar, Isle of Gotland, Sweden.
(5) *E. proliferum* (Dybowski) var. *brevis* Wedekind, 1927, p. 23, pl. xxix, figs. 26–29. Same horizon and locality.
(6) *E. culmiforme* Wedekind, 1927, p. 23, pl. xxix, fig. 32=*Cyathophyllum proliferum* partim Dybowski, 1874, p. 445, pl. iii, fig. 2b only. Same horizon and locality.
(7) *E. fasciculatum* Wedekind, 1927, p. 24, pl. ii, figs. 11, 12, pl. xxix, figs. 30, 31, 34–51, pl. xxx, fig. 1. Upper Silurian: Lau backar, Lau canal, and Östergarn, Isle of Gotland, Sweden.
(8) *E. articulatum* Wedekind, 1927, pp. 22, 24=*Xylodes articulatus* (Wahlenberg), Smith & Tremberth, 1929, p. 363, pl. vii, and text-fig. 1 on p. 365= *Madreporites articulatus* Wahlenberg, 1821 [1819], p. 97. [Upper Silurian]: Isle of Gotland, Sweden.
GENOLECTOTYPE (here chosen):—*E. articulatum* (Wahlenberg).
REMARKS. Wedekind does not mention Wahlenberg as the author of the genolectotype, but it is clear that this is implied. *M. articulatus* Wahlenberg is

the genotype of *Xylodes* Lang & Smith, 1927 (October), p. 461, and thus *Entelophyllum* anticipates *Xylodes*.

Wedekind described two other species which he only doubtfully included in *Entelophyllum*, and hence, under Article XXX of the International Rules of Zoological Nomenclature, they are not genosyntypes.

ENTERELASMA as *Enterolasma* [sic] Simpson, 1900, p. 203.

GENOHOLOTYPE (by author's original designation):—*Streptelasma* (*Petraia*) *stricta* [sic] Hall, 1874, p. 114=*Streptelasma strictum* Hall & Simpson, 1887, p. 1, pl. i, figs. 1–10. Lower Devonian, Helderberg group: Clarksville, Albany County, and other localities, New York, U.S.A.

ENTEROLASMA Simpson—see *Enterelasma* Simpson.

ENYGMOPHYLLUM Fomichev—see *Aenigmatophyllum* Fomichev.

EOSTROTION A. Vaughan, 1915, p. 39.

GENOHOLOTYPE (by author's original designation):—*Cyathaxonia tortuosa* Michelin, 1846, p. 258, pl. lix, fig. 8. Lower Carboniferous, Tournaisian: Tournai, Belgium.

REMARKS. See *Lophophyllum* Edwards & Haime.

ERIDOPHYLLUM Edwards & Haime, 1850, p. lxxi.

GENOHOLOTYPE (by authors' original designation):—*E. seriale* Edwards & Haime, 1850, p. lxxi, and re-named *E. verneuilianum* by Edwards & Haime, 1851, p. 424, pl. viii, figs. 6, 6a, by which name it is generally, though wrongly, known. [Middle] Devonian: Columbus, Ohio, U.S.A.

REMARKS. See *Craspedophyllum* Dybowski, *Crepidophyllum* Nicholson & Thomson, and *Schistotoechelasma* Stewart.

ETHMOPLAX Smyth, 1939, p. 859, nom. nov. for *Stratiphyllum* Smyth, 1933[2], q.v.

GENOHOLOTYPE (genoholotype of *Stratiphyllum* Smyth by author's original designation):—*Stratiphyllum tenue* Smyth, 1933[2], p. 173, pl. x, figs. 1–12. Lower Carboniferous, Tournaisian: Tournai, Belgium.

EUMICHELINIA Yabe & Hayasaka, 1915, p. 59.

GENOSYNTYPES:—"All typical Carboniferous forms of the genus [*Michelinia*] and also some Devonian forms as *M. convexa* d'Orbigny," Yabe & Hayasaka, 1915, p. 59.

GENOLECTOTYPE (here chosen):—*Michelinia tenuisepta* (Phillips) de Koninck, 1841, p. 31, pl. c, figs. 3a, b. Lower Carboniferous, Tournaisian: Tournai, Belgium.

REMARKS. *Eumichelinia* is, therefore, an absolute synonym of *Michelinia* de Koninck.

EUREKAPHYLLUM Stumm, 1937, p. 431.

GENOHOLOTYPE (by author's original designation):—*E. breviseptatum* Stumm, 1937, p. 431, pl. liii, fig. 8, pl. liv, fig. 8. Lower Middle Devonian, basal 500 ft. of the Nevada Limestone: Lone Mountain, 18 miles north-west of Eureka, Nevada, U.S.A.

EURYPHYLLUM Hill, 1937[1], p. 150.

GENOHOLOTYPE (by author's original designation):—*E. reidi* Hill, 1937[1], p. 150. Permian, Upper Dilly Stage: Cabbage Creek, Springsure District, Queensland, Australia.

REMARKS. See also Hill, 1937[2], p. 50, and, for description and figures of *E. reidi*, Hill, 1938[1].

EXOSTEGA Rafinesque & Clifford, 1820, p. 235, as sub-genus of *Turbinolia*.

GENOSYNTYPES:—

(1) *E. tecta* Rafinesque & Clifford, 1820, p. 235. [Devonian]: Kentucky, U.S.A.

(2) *E. stricta* Rafinesque & Clifford, 1820, p. 235. [Devonian]: Kentucky, U.S.A.

GENOLECTOTYPE (here chosen):—*E. tecta* Rafinesque & Clifford.

*EXPLANARIA Lamarck, 1816, p. 254, founded on six species of Recent hexacorals.

REMARKS. Geinitz, 1846, p. 568, used this genus for species of *Heliolites* Dana.

FAPHRENTIS Hall, 1852[2], p. 408—errore pro *Zaphrentis*.

FASCICULARIA Dybowski, 1873[1], p. 336 (no species mentioned), and 1874, p. 457—pre-occupied by *Fascicularia* Lamarck, 1816, p. 220, for an aporose coral, and by *Fascicularia* Edwards MS. in Busk, 1859, p. 129, for a Crag polyzoan.

GENOHOLOTYPE (first species subsequently referred to the genus—by Dybowski, 1873[2], p. 406):—*F. kunthi* (Dames) Dybowski, 1873[2], p. 406, pl. xiii, figs. 3, 4. Devonian: Oberkunzendorf, Silesia, Germany=*Cyathophyllum kunthi* Dames, 1869, p. 699=*Lithostrotion caespitosum* (Goldfuss) Dames, 1868, p. 492=*Lithodendron caespitosum* Goldfuss, 1826, p. 44, pl. xiii, fig. 4.

REMARKS. *Lithodendron caespitosum* Goldfuss is the genotype of *Phacelophyllum* Gürich, and therefore *Fascicularia* Dybowski and *Phacelophyllum* Gürich are synonymous.

FASCICULOPHYLLUM Thomson, 1883, p. 448.

GENOLECTOTYPE (see Gregory, 1917, pp. 223, 238):—*F. dybowskii* Thomson, 1883, p. 449, pl. vi, figs. 23, 23a. Lower Carboniferous: Charleston, Fifeshire, Scotland.

REMARKS. See *Centrocellulosum* Thomson.

FASCIPHYLLUM Schlüter, 1885[3], p. 52.

GENOHOLOTYPE (by monotypy):—*F. conglomeratum* Schlüter, 1885[3], p. 52=*Fascicularia*? [sic] *conglomerata* Schlüter, 1880[3], p. 147=*Fascicularia conglomerata* Schlüter, 1881[4], p. 99, pl. xiii, figs. 1–3, and 1881[6], p. 220, pl. ix, figs. 1–3. Middle Devonian, probably reaching its maximum in the *Stringocephalus* Limestone, but apparently occurring also in the Crinoidal Shales: Eifel district, more particularly in the Dahlem and Schmidtheim areas, Hillesheim-Berndorf, and Gerolstein, Germany.

REMARKS. *F. conglomeratum* is a species of *Columnaria* Goldfuss, with thickened tissue like the genotype of *Densiphyllum* Dybowski.

FAVASTRAEA as *Favastrea* [sic] de Blainville, 1834, p. 686.

GENOLECTOTYPE (see Lang & Smith, 1935[2], p. 549):—*A*[*straea*] *baltica* (Schweigger) de Blainville, 1830, p. 340=*Madrepora ananas* Linnaeus, 1758, p. 797. Silurian: Isle of Gotland, Sweden (but not *Cyathophyllum ananas* Goldfuss, 1826, p. 60, pl. xix, figs. 4a, b. Devonian: "Namur," Belgium, which de Blainville also includes in his synonymy of *Astraea baltica*).

REMARKS. *Favastraea* is thus an absolute synonym of *Acervularia* Schweigger. The generic name *Favastraea* de Blainville, 1834, only appears in the index. In the text of 1830, p. 340, and 1834, p. 374, this division of de Blainville's *Astraea* is quoted as "Les Favastrées; *G. Acervularia*, Schweigger, *Cyathophyllum*, Goldfuss."

FAVASTREA de Blainville—see *Favastraea* de Blainville.

FAVIPHYLLUM Hall, 1852[2], p. 407—nomen nudum.

REMARKS. Hall gives no generic diagnosis and mentions only one species, namely, *Faviphyllum*? [sic] *rugosum* Hall, 1852[2], p. 407, pl. i, figs. 1a, b, from the Carboniferous, west and north-west of the Great Salt Lake, Utah, U.S.A., which, according to Article XXX of the International Rules of Zoological Nomenclature, is not the genoholotype by monotypy, since it is only doubtfully referred to the genus. Therefore the name *Faviphyllum* is a nomen nudum and must lapse. *F*? [sic] *rugosum* itself was founded on badly preserved and indeterminate material.

FAVISTELLA Hall, 1847, p. 275.

GENOHOLOTYPE (by monotypy):—*F. stellata* Hall, 1847, p. 275, pl. lxxv, figs. 1a–c. Ordovician, Hudson River Group: State of New York, and Madison, Indiana, U.S.A.

REMARKS. Nicholson, 1875[3], p. 279, and 1879, p. 191, and Lindström, 1883[3], p. 9, regard *Favistella* as a synonym of *Columnaria* Goldfuss. Bassler, 1915, p. 259, considers *Favistella stellata* Hall to be *Columnaria alveolata* Goldfuss.

FAVISTELLA Dana, 1848, p. 538, as sub-genus of *Favosites*, pre-occupied by *Favistella* Hall, 1847, q.v.

GENOHOLOTYPE (by monotypy):—*Columnaria alveolaris* Van Cleve, figured in "Western Fossils," according to Dana.

REMARKS. Dana gives no reference to J. W. Van Cleve's paper. The only paper by the latter seems to be in *Proc. Amer. Assoc. Adv. Sci.*, I (Philadelphia), 1849, pp. 19–24: fossil list on pp. 22–24. On p. 22 Van Cleve mentions "*Columnaria alveolata*, Goldf., Dayton; quarries, Madison, Ind.," and on p. 23 "*Favosites alveolaris* Goldf., yellow limestone, Dayton." His large work was never published (see *op. cit.*, p. 24), though the MS. and plates were prepared; but the plates were published by C. A. White ("Van Cleve's Fossil Corals" in *Dept. Geol. Nat. Hist. Indiana, 11th Ann. Rept. for 1881*, 1882, pp. 376–401, pls. xliv–lv—see also references, *ibid.*, pp. 348–349, and p. 401), and by J. Hall ("Van Cleve's Fossil Corals," in *Dept. Geol. Nat. Hist. Indiana, 12th Ann. Rept. for 1882*, 1883, pp. 239–270, pls. i–xiv), with a list of Van Cleve's determinations and their equivalents, according to Hall, on pp. 241–243. (Note the comments of Hall on pp. 269–270 that the figures of Van Cleve are often copies of Goldfuss's.) According to Hall's list and paper (p. 257), Van

Cleve's MS. contained a specimen identified by the latter as *Calamopora alveolaris* (Goldfuss) (=*Favosites hemisphericus* Yandell & Shumard according to Hall). But nowhere does Hall quote a reference in Van Cleve's MS. to *Columnaria alveolaris*. It is probable that Dana meant to refer to one of the two species mentioned by Van Cleve, 1849, pp. 22–23, i.e., *Columnaria alveolata* Goldfuss, and *Favosites alveolaris* Goldfuss, or else to Van Cleve's MS. name *Calamopora alveolaris* Goldfuss (?=*Favosites alveolaris* Goldfuss). At any rate, Dana's *Favistella* can accordingly be dismissed as indeterminate, and founded on a non-existent or mis-named species. Further, it is preoccupied by *Favistella* Hall, 1847.

Bassler, 1915, p. 258, erroneously gives 1846 as the date of *Favistella* Dana. He merges the genus in *Columnaria* Goldfuss.

FAVOSITELLA Mansuy, 1912, p. 77—pre-occupied by *Favositella* Etheridge & Foord, 1884[1], p. 472, for a Bryozoan.

GENOHOLOTYPE (by monotypy):—*F. columnaris* Mansuy, 1912, p. 78, pl. xiv, figs. 7a–c, pl. xv, figs. 1a–b. Upper Devonian, *Rhynchonella omaliusi* Limestone: east of Yi-Léang, Yun-nan, China.

REMARKS. We are uncertain of the zoological position of this genus.

FAVOSITES Lamarck, 1816, p. 204.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. lx):—*F. gothlandicus* Lamarck, 1816, p. 205=*Specimen . . . corallinum Gothlandicum* Linnaeus, 1745, p. 39, fig. xxvii, and 1749, p. 106, pl. iv, fig. xxvii. [Silurian]: Isle of Gotland, Sweden.

REMARKS. King, 1850, p. 26, designated *Madrepora truncata* Esper, 1798–1806, pl. iv, as genolectotype. Although Lamarck mentions this species as a synonym of *Favosites alveolata*—the first of the two syntypes of the genus—it cannot be maintained to be one of the genosyntypes, and King's choice is invalid, even if it could be proved to have priority over Edwards & Haime. Thus Miller, 1889, p. 188, and Bassler, 1915, p. 527, who both misquote the date of Lamarck as 1812 [sic], are wrong in accepting *F. alveolata* Lamarck as genotype, as is Gürich, 1908, p. 39, who quotes *F. forbesi* Edwards & Haime. See *Boreaster* Lambe, *Calamopora* Goldfuss, and *Palaeofavosites* Twenhofel.

FISCHERINA Stuckenberg, 1904, p. 107—pre-occupied by *Fischerina* Terquem, 1878, p. 80, for a foraminifer.

GENOHOLOTYPE (by monotypy):—*F. rossica* Stuckenberg, 1904, p. 107, pl. vi, figs. 11a–c. Lower Carboniferous: Wyschnij Wolotschok, Government of Twer, Central Russia.

REMARKS. This is probably a synonym of *Lithostrotion* Fleming.

**FISTULIPORA* McCoy, 1849, p. 130, a Carboniferous polyzoan—pre-occupied by *Fistulipora* Rafinesque, 1831, p. 5, for a Devonian polyzoan.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. lix):—*F. minor* McCoy, 1849, p. 130. Lower Carboniferous: Derbyshire, England.

REMARKS. Dr. K. P. Oakley informs us that *F. canadensis* Billings, 1858[1], p. 165, and 1858[2], p. 420, from the Middle Devonian, Onondaga Limestone, of Wainfleet, Lake Erie, Canada, is probably a species of *Heliolites* Dana.

FLETCHERIA Edwards & Haime, 1851, pp. 156, 300.
GENOHOLOTYPE (by authors' original designation):—*F. tubifera* Edwards & Haime, 1851, p. 300, pl. xiv, fig. 5. Silurian: Isle of Gotland, Sweden.
REMARKS. See *Pycnostylus* Whiteaves.

FLOSCULARIA Eichwald, 1829, p. 188—pre-occupied by *Flosculariа* Cuvier, 1798, p. 664, for a rotifer.
GENOSYNTYPES:—
(1) *F. corolligera* Eichwald, 1829, p. 188, pl. ii, fig. 4. [Drift ex Silurian]: Lithuania—"Hab. fossilis regiones Lithuanicas."
(2) *F. luxurians* Eichwald, 1829, p. 188, pl. ii, fig. 5. [Drift ex Silurian]: Lithuania—"Hab., in calcem compactissimam commutata, Lithuaniae terram alluvii."
GENOLECTOTYPE (here chosen):—*F. luxurians* Eichwald, which is probably *Madrepora ananas* Linnaeus, genotype of *Acervularia* Schweigger.

FOSSIPORA as *Fossopora* [sic] Etheridge, 1903[1], p. 16.
GENOHOLOTYPE (by monotypy):—*F. wellingtonensis* Etheridge, 1903[1], p. 16, pls. i, ii. Siluro-Devonian [Silurian]: Wellington, New South Wales, Australia.

FOSSOPORA Etheridge—see *Fossipora* Etheridge.

**FUNGIA* Lamarck, 1801, p. 369—a Recent hexacoral.
GENOLECTOTYPE (see Leuckart, 1841, p. 42):—*F. agariciformis* Lamarck, 1801, p. 369=*Madrepora fungites* Linnaeus, 1758, p. 793. Recent: Red Sea.
REMARKS. Some early writers have included Palaeozoic corals in this genus, which is an absolute synonym of *Fungites* Cuvier, q.v.

FUNGITES Gl[editsch], 1765, p. 266.
GENOLECTOTYPE (see Lang & Smith, 1937, p. 617):—*F. tubularis* Gl[editsch], 1765, p. 266. [Drift ex Silurian]: Potsdam, Brandenburg, Germany.
REMARKS. Gleditsch refers to a figure of Bekman, a pre-Linnean author, 1751, p. 929, pl. xix, fig. 6, which is a species of *Heliolites* Dana. The latter genus thus becomes a synonym of *Fungites*, and its use would normally have to be discontinued. Lang & Smith, 1937, p. 618, advocate the suppression of *Fungites*, however, and have applied to the International Commission on Zoological Nomenclature for the suspension of the rules in this case.

***FUNGITES** Cuvier, 1798, p. 676, a hexacoral, as sub-genus of *Madrepora* Linnaeus (non *Fungites* Gleditsch, 1765, p. 266, q.v.).
GENOHOLOTYPE (by absolute tautonymy):—*Madrepora* (*Fungites*) *fungites* Cuvier, 1798, p. 677=*Madrepora fungites* Linnaeus, 1758, p. 793. Recent: Red Sea.
REMARKS. If *Fungites* Gleditsch (q.v.) is suppressed under the Rules of Nomenclature, then *Fungites* Cuvier is valid, and the use of *Fungia* Lamarck, an absolute synonym of the latter, will have to be discontinued. See also J. E. Guettard, 1770, under "Literature."

GEOPORITES d'Orbigny, 1850, p. 49.
GENOSYNTYPES:—Nine species of Silurian and Devonian corals, most, if not all, species of *Heliolites* Dana.

GENOLECTOTYPE (here chosen):—*G. porosa* (Goldfuss) d'Orbigny, 1850, p. 108= *Astraea porosa* Goldfuss, 1826, p. 64, pl. xxi, fig. 7. Devonian: Eifel district, Germany.

REMARKS. *Geoporites* is an absolute synonym of *Heliolites* Dana.

GEPHUROPORA Etheridge, 1920, p. 60.

GENOHOLOTYPE (by monotypy):—*Favosites* (?*Columnopora* [sic]) *duni* Etheridge, 1920, pp. 56–60, and explanation of pls. xiv, figs. 2–5, pl. xv, figs. 1, 2. Silurian or Devonian, Sponge Limestone?: Cavan, Murrumbidgee River, New South Wales, Australia.

REMARKS. Etheridge states, "The precise horizon in the Murrumbidgee section is unknown, the specimens having been found lying loose near the Sponge Limestone, from which they may have been derived."

GERTHIA Grabau, 1928, p. 29.

GENOHOLOTYPE (by author's original designation):—*Polycoelia angusta* Rothpletz, 1892, p. 69, pl. xii, figs. 23, 31, 32. [Upper] Permian: Ajer mati, Timor.

REMARKS. See Hill, 1937[2], p. 46.

GEYEROPHYLLUM Heritsch, 1936, p. 131.

GENOHOLOTYPE (by author's original designation):—*G. carnicum* Heritsch, 1936, p. 132, pl. xviii, figs. 18, 22, and text-figs. 36, 37 on p. 135 (text-fig. pl. iv). Upper Carboniferous, Auernig beds, obere kalkarme Schichtgruppe: near the ruins of the former Ahornach-Alpe, Limestone west of Ochsenhüttel in the Ahornach district, the limestone band north-east of the Gross-Kordin-Alpe, and on Monte Pizzul, Carnic Alps, Austria.

GLOSSOPHYLLUM Wedekind, 1924, p. 76.

GENOSYNTYPES:—

(1) *G. dohmi* Wedekind, 1924, p. 77, text-figs. 109–112 on p. 78.
(2) *G. salmense* Wedekind, 1924, p. 78, text-figs. 113, 114 on p. 78.
(3) *G. lateseptatum* Wedekind, 1924, p. 79, text-figs. 115–117 on p. 79 and 118–120 on p. 80.

All from the Lower Middle Devonian: Salmer Weg, near Gerolstein, Eifel district, Germany.

GENOLECTOTYPE (here chosen):—*G. dohmi* Wedekind.

GONIOPHYLLUM Edwards & Haime, 1850, p. lxix.

GENOHOLOTYPE (by authors' original designation):—*Turbinolia pyramidalis* Hisinger, 1831, p. 128, pl. vii, fig. 5, and 1837, p. 101, pl. xxviii, fig. 12. [Silurian, Lower and Upper Visby Marls]: Isle of Gotland, Sweden.

REMARKS. *T. pyramidalis* Hisinger, 1829, p. 22, is only a nomen nudum.

GORWENIA Wedekind, 1937, p. 64, and pl. ix, fig. 12 on p. 61—errore pro *Corwenia* Smith & Ryder.

GRABAUPHYLLUM Foerste, 1917, p. 199.

GENOHOLOTYPE (by monotypy):—*G. johnstoni* Foerste, 1917, p. 199, pl. xi, fig. 9. Silurian, Niagaran dolomite: near McCook, 5 miles west of Chicago, Illinois, U.S.A.

GREWINGKIA Dybowski, 1873[1], pp. 335, 384.

GENOLECTOTYPE (see Sherzer, 1891, p. 284):—*Clisiophyllum buceros* Eichwald, 1855[2], pl. xxix, fig. 17, 1856, p. 108, and 1860, p. 552. Ordovician, Z.2= zone 2 of Schmidt, 1858: various localities on the Island of Dagö and the mainland of Esthonia.

REMARKS. The selection by Wedekind, 1927, p. 18, of *G. formosa* Dybowski, is invalidated by Sherzer's prior choice.

GRYPOPHYLLUM Wedekind, 1922[1], p. 13.

GENOHOLOTYPE (by author's original designation):—*G. denckmanni* Wedekind, 1922[1], p. 13, text-figs. 13, 14 on p. 14. Middle Devonian, Bücheler Schichten: Bergisch-Gladbach, Rhenish Prussia, Germany.

REMARKS. Wedekind, 1925, p. 14, selects *Cyathophyllum isactis* Frech, 1886, p. 189, pl. xiii, fig. 7, pl. xiv, figs. 13–19, as genolectotype, but he had already irrevocably designated *G. denckmanni* as genoholotype.

GSHELIA Stuckenberg, 1888, pp. 24, 49.

GENOHOLOTYPE (by monotypy):—*G. rouilleri* Stuckenberg, 1888, pp. 24, 50, pl. iii, figs. 27–33. Carboniferous, Ober Kohlenkalk: Gshel (between Troshkovoi and Glebovoi), Moscow Province, Russia.

GYALOPHYLLUM Wedekind, 1927, p. 64.

GENOHOLOTYPE (by author's original designation):—*G. angelini* Wedekind, 1927, p. 64, pl. xix, figs. 1, 2. Silurian, Klintbergkalk: Klintberg, near Klintehamn, Isle of Gotland, Sweden.

HADROPHYLLUM Edwards & Haime, 1850, p. lxvii.

GENOHOLOTYPE (by authors' original designation):—*H. orbignyi* Edwards & Haime, 1850, p. lxvii, described and figured by Edwards & Haime, 1851, p. 357, pl. vi, figs. 4, 4a. Devonian: Charleston Landing, Indiana, and Clarke County, above Louisville, Ohio, U.S.A.

HAIMEOPHYLLUM Billings, 1859[1], p. 139.

GENOHOLOTYPE (by monotypy):—*H. ordinatum* Billings, 1859[1], p. 139, fig. 39 on p. 140. Middle Devonian, Corniferous [Onondaga] Limestone: Township of Walpole, Canada West [Ontario].

REMARKS. Miller, 1889, p. 191, considered the genus a synonym of *Chonostegites* Edwards & Haime, and in this we entirely agree.

HALLIA Edwards & Haime, 1850, p. lxvii.

GENOHOLOTYPE (by authors' original designation):—*H. insignis* Edwards & Haime, 1850, p. lxvii, described and figured by Edwards & Haime, 1851, p. 353, pl. vi, fig. 3. Devonian: Columbus, Ohio, U.S.A.

HALYSITES as *Alyssites* [sic] Fischer von Waldheim, 1813, p. 387.

GENOHOLOTYPE (by monotypy):—*Tubipora catenularia* Linnaeus, 1767[2], p. 1270. [Silurian], thrown up on the shores of the Baltic Sea=*Millepora . . . concatenatis* Linnaeus, 1745, p. 34, fig. xx, and 1749, p. 103, pl. iv, fig. xx.

REMARKS. Fischer von Waldheim, 1828, p. 15, emended the name *Alyssites*, with

obvious propriety, to *Halysites*, according to its derivation from ἅλυσις, "a chain." See Etheridge, 1904[2], for the history of the genus; and also *Catenipora* Lamarck.

HAPLOTHECIA Frech, 1885[1], p. 68.

GENOHOLOTYPE (by monotypy):—*H. filata* (Schlotheim) Frech, 1885[1], p. 68, pl. iv, figs. 7, 7a = *Madreporites filatus* Schlotheim partim—[var.] α, 1820, p. 359. Upper Devonian [Frasnian]: Winterberg, near Grund, Harz Mountains, Germany.

REMARKS. Lang & Smith, 1935[2], p. 549, regard *Haplothecia* as congeneric with *Phillipsastraea*, at any rate, for the present, "though it may be found desirable in the future to retain the name, perhaps as a genomorph, for forms exhibiting the peculiar septal degeneration described." See Lang & Smith, 1935[2], pp. 549–550.

HAPSIPHYLLUM Simpson, 1900, p. 203.

GENOHOLOTYPE (by author's original designation):—*Zaphrentis calcariformis* Hall, 1882, p. 33, 1883[1], p. 293, pl. xxi, figs. 10, 11, and 1884, p. 437. Middle Devonian, Corniferous [Onondaga] Limestone: Falls of the Ohio, Ohio, U.S.A.

REMARKS. See *Zaphrentoides* Stuckenberg.

HARMODITES Fischer von Waldheim, 1828, p. 19.

GENOSYNTYPES:—

(1) *H. distans* Eichwald, 1828, p. 19, fig. 1 on plate.
(2) *H. radians* Eichwald, 1828, p. 20, figs. 2, 3 on plate.
(3) *H. confusa* Eichwald, 1828, p. 21.
(4) *H. stolonifera* Eichwald, 1828, p. 21.
(5) *H. ramosa* Eichwald, 1828, p. 22.
(6) *H. parallela* Eichwald, 1828, p. 23.

All from the Lower Carboniferous of Russia.

GENOLECTOTYPE (here chosen):—*H. distans* Eichwald. [Carboniferous]: Arkhangelsky, on the River Moskva, 10 versts south of Moscow, Russia.

REMARKS. The genotype is apparently identical with *Syringopora ramulosa* Goldfuss, but the tubes are slightly narrower and more distant. The genus is a synonym of *Syringopora* Goldfuss.

HATTONIA Jones, 1927, p. 438.

GENOHOLOTYPE (by monotypy):—*H. etheridgei* Jones, 1927, p. 438, pl. xii. Upper Silurian, *Barrandella* Shales: Hatton's Corner, Yass, New South Wales, Australia.

HAYASAKAIA nom. nov. for *Tetrapora* Yabe & Hayasaka, 1915, p. 87, non *Tetrapora* Quenstedt, 1857, p. 666.

GENOHOLOTYPE (genoholotype of *Tetrapora* Yabe & Hayasaka by authors' original designation):—*T. elegantula* Yabe & Hayasaka, 1915, p. 89, and 1920, pl. vi, figs. 4a, b, pl. ix, figs. 9a, b. Carboniferous? [sic] [Permian, Chihsia Limestone, *T. elegantula* zone (see Yoh & Huang, 1932, p. 4)]: Province of Fukien; Kung-shan, Hui-tso-hsien, Province of Yun-nan; and other localities in South China.

REMARKS. In pl. ix, figs. 9a, b, *T. elegantula* is referred to as *T. elegaus* [sic]. The genus is allied to *Syringopora* Goldfuss.

HEDSTRÖMOPHYLLUM Wedekind, 1927, p. 64.

GENOHOLOTYPE (by author's original designation):—*H. articulatum* Wedekind, 1927, pp. 65, 67, pl. xxi, figs. 1, 2, pl. xxvi, figs. 6–12. Silurian, middle part of Horizon III of Hedström: north-west coast of the Isle of Gotland, Sweden.

HELENTEROPHYLLUM Grabau, 1910, p. 95.

GENOHOLOTYPE (by author's original designation):—*H. caliculoides* Grabau, 1910, p. 95, pl. xi, figs. 2, 3. Upper Silurian, Monroe formation, Anderdon coral reef: Anderdon quarry, near Amherstburg, Ontario, Canada; and Manlius Limestone: Manlius, New York, U.S.A.

HELIOLITES Dana, 1848, p. 541.

GENOHOLOTYPE (by author's original designation, p. 542):—*Astraea porosa* Goldfuss, 1826, p. 64, pl. xxi, fig. 7. Devonian: Eifel district, Germany = *Héliolithe pyriforme* . . . Guettard, 1770, vol. iii, p. 454, pl. xxii, figs. 13, 14. [Devonian]: Eifel district, Germany.

REMARKS. See *Geoporites* d'Orbigny, *Palaeopora* McCoy, and *Stelliporella* Wentzel; and also J. E. Guettard, 1770, under "Literature."

HELIOPHRENTIS Grabau, 1910, p. 98.

GENOHOLOTYPE (by author's original designation):—*H. alternatum* Grabau, 1910, p. 99, pl. xiii, figs. 2, 3. Silurian, Monroe Formation, Amherstburg dolomite: Detroit River bottom, near Amherstburg, Ontario, Canada.

REMARKS. Probably=*Zaphrentis* Rafinesque & Clifford (see O'Connell, 1914, p. 190).

HELIOPHYLLUM Hall MS. in Dana, 1848, p. 356, as sub-genus of *Cyathophyllum.*

GENOHOLOTYPE (by monotypy):—*Strombodes helianthoides?* [sic] Goldfuss, Hall, 1843, p. 209, text-fig. 87, 3 on p. 209, and no. 48, fig. 3 on p. 44 of tables. Middle Devonian, Hamilton Group: Moscow, York, and Seneca Lake, New York, U.S.A.=*Heliophyllum halli* Edwards & Haime, 1850, p. lxix.

REMARKS. Hall refers to *Cyathophyllum helianthoides* Goldfuss, 1826, p. 61, pl. xx, fig. 2, and to Phillips, 1841, p. 11, pl. v, fig. 13; but his species is neither that of Goldfuss nor of Phillips. Edwards & Haime re-named Hall's species *H. halli.* See *Ceriophyllum* Wedekind.

HELIOPLASMA Kettnerova, 1933, p. 180.

GENOHOLOTYPE (by author's original designation):—*H. kolihai* Kettnerova, 1933, p. 182, text-figs. 1–2 on p. 182. Lower Devonian, Koněprusy Limestone, *f*: Zlatý Kůň, near Koněprusy, Bohemia.

*HELIOPORA de Blainville, 1830, p. 357—a Recent Alcyonarian coral.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. lviii):—*Millepora caerulea* Ellis & Solander, 1786, p. 142, pl. xii, fig. 4 = *Millepora caerulea* Pallas, 1766, p. 256. Recent.

REMARKS. Early writers used to refer some Palaeozoic tabulate corals (e.g., species of *Heliolites* Dana) to this genus.

HELMINTHIDIUM Lindström, 1882[2], p. 16.

GENOHOLOTYPE (by monotypy):—*H. mirum* Lindström, 1882[2], p. 16. Silurian, Salopian: Isle of Gotland, Sweden, and Dudley, Worcestershire, England= "an unknown coral from Djupvik," Lindström, 1870, pp. 6, 12, explanation of fig. 14 on plate opposite p. 12=*Calostylis andersoni* Nicholson in Nicholson & Lyddeker, 1889, p. 307, text-fig. 189 on p. 307. Silurian, Wenlock Limestone: Shropshire, England.

REMARKS. For good figures of the genotype see Lindström, 1896[2], pl. i, figs. 1–8, and Smith, 1930, pl. xii, figs. 8–15. Lindström, 1896[2], p. 4, himself identified *H. mirum* with *C. andersoni*.

HEMICOSMOPHYLLUM Wedekind & Vollbrecht, 1931, explanation of pls. xliv–xlvi (and 1932, pp. 110, 111).

GENOHOLOTYPE (by authors' original designation):—*H. limbatum* Wedekind & Vollbrecht, 1931, pl. xlv, figs. 6–12, and 1932, p. 111, pl. xii, figs. 1–8. Middle part of the Middle Devonian, zone of *Cosmophyllum dachsbergi*: Dachsberg, Gerolstein, and Hillesheim, Eifel district, Germany.

HEMICYSTIPHYLLUM Wedekind, 1925, p. 28.

GENOHOLOTYPE (by monotypy):—*H. frechi* Wedekind, 1925, p. 66, text-figs. 100, 101 on p. 67 (pl. xvii). Middle Middle Devonian: Loogher Mühle, Loogh, Eifel district, Germany.

HEMIPHYLLUM Tomes, 1887, p. 98.

GENOHOLOTYPE (by monotypy):—*H. siluriense* McCoy? [sic] Tomes, 1887, p. 98, text-figs. 1, 2 on p. 99. Silurian, Wenlock Limestone: Wenlock, Shropshire, England.

REMARKS. The coral upon which Tomes founded the genus *Hemiphyllum* is a species of *Calostylis* Lindström, and has been named *C. tomesi* Smith, 1930[1], p. 269, pl. xi, figs. 12–17. *Hemiphyllum* is thus a synonym of *Calostylis*.

HEPTAPHYLLUM Clark, 1924, p. 416.

GENOHOLOTYPE (by author's original designation):—*H. gracile* Clark, 1924, p. 417, text-fig. 7 on p. 418. Lower Carboniferous, Z1, Shales overlying the Lower Sandstone anticline: north coast of County Sligo, Ireland.

HERCOPHYLLUM Jones, 1936[2], p. 53.

GENOHOLOTYPE (by author's original designation):—*Cyathophyllum shearsbyi* Süssmilch, 1914, fig. 14b facing p. 44. Upper Silurian, *Barrandella* Shales: Limestone Creek, near Yass, New South Wales, Australia (no locality was quoted by Süssmilch in 1914, but this information was given by him to one of us [H.D.T.] in a letter dated 23rd December, 1936).

REMARKS. The genus is synonymous with *Phaulactis* Ryder.

HETERELASMA as *Heterolasma* [sic] Ehlers, 1919, p. 461—pre-occupied by *Heterelasma* Girty, 1908, p. 337, for a Palaeozoic brachiopod.

GENOHOLOTYPE (by author's original designation, p. 467):—*H. foerstei* Ehlers, 1919, p. 461, text-figs. 1 on p. 462, 2 on p. 463, 3 on p. 465. Silurian, Niagaran, Manistique Formation: ½-mile south of Gould City, Mackinac County, and Detour, Chippewa County, Michigan, U.S.A.

REMARKS. Ehlers, 1919, p. 467, thinks the genotype may ultimately prove to be conspecific with *Zaphrentis patens* Billings, 1865[2], p. 430, from the Silurian, Anticostian, of Cormorant Point, Anticosti, Canada. The genus is probably synonymous with *Cetophyllum* Wedekind.

HETERELASMA Grabau, 1922, p. 41—pre-occupied by *Heterelasma* Girty, 1908, p. 337, for a Palaeozoic brachiopod, and by *Heterelasma* Ehlers, 1919, p. 461, for a Silurian coral.

GENOHOLOTYPE (by author's original designation):— *Hadrophyllum edwardsianum* de Koninck, 1872, p. 52, pl. iv, figs. 2, 2a. Lower Carboniferous, Tournaisian: Tournai, Belgium.

REMARKS. Grabau, 1928, pp. 35–36, suggests that *Heterelasma* Grabau is the same as, but an immature form of, *Bradyphyllum* Grabau.

HETEROCANINIA Yabe & Hayasaka, 1920, pl. xi, figs. 2a–d.

GENOHOLOTYPE (by monotypy):—*H. tholusitabulata* Yabe & Hayasaka, 1920, pl. xi, figs. 2a–d. Carboniferous: Hsia-lo-shi-chiao, Chi-yang-hsien, Province of Hunan, China.

REMARKS. See Grabau, 1922, p. 15, Yü, 1931, p. 28 (who describes the species for the first time), and Yü, 1933 [1934], p. 63; and also *Kueichouphyllum* Yü.

HETEROCOENITES Gerth, 1921, p. 109.

GENOSYNTYPES:—

(1) *H. variabilis* Gerth, 1921, p. 110, p. cxlix, figs. 6–8, pl. cl, figs. 6–8. Permian: Basleo, Timor.

(2) *H. crassus* Gerth, 1921, p. 111, pl. cl, fig. 9. Permian: Basleo, Timor.

GENOLECTOTYPE (here chosen):—*H. variabilis* Gerth.

HETEROLASMA Ehlers—see *Heterelasma* Ehlers.

HETEROPHRENTIS Billings, 1875, p. 235.

GENOLECTOTYPE (see Miller, 1889, p. 193):—*H. spatiosa* Billings, 1875, p. 235. Middle Devonian, Corniferous [Limestone], Hamilton Group: Ontario, Canada=*Zaphrentis spatiosa* Billings, 1858[1], p. 178, and 1859[1], p. 123. Middle Devonian, "Onondaga and Corniferous Limestones": Rama's Farm, near Port Colborne, Canada West [Ontario].

REMARKS. O'Connell, 1914, pp. 183, 190, identifies *H. spatiosa* with *H. prolifica* (Billings) = *Zaphrentis prolifica* Billings 1858[1], p. 176, and 1859[1], p. 121, text-figs. 22, 23, on p. 121, from the Corniferous Limestone of Rama's Farm, near Port Colborne, Canada West [Ontario]. But Stewart, 1938, p. 22, does not include *H. spatiosa* in the synonymy of *H. prolifica*, though she quotes the latter species as genotype.

HETEROPHYLLIA McCoy, 1849, p. 126.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. lxxiii):—*H. grandis* McCoy, 1849, p. 126, and 1851, p. 112, pl. iiiA, figs. 1, 1a. Lower Carboniferous: Derbyshire, England.

HETTONIA Hudson & Anderson, 1928, p. 335.

GENOHOLOTYPE (by authors' original designation):—*H. fallax* Hudson & Anderson, 1928, p. 337, pls. i, ii, and text-fig. 1 opposite p. 336. Lower Carboniferous, S2 zone: Hetton Beck, Mill Gate Plantation, near Rylstone, Yorkshire, England.

HEXAGONARIA Gürich, 1896, p. 171.

GENOSYNTYPES:—

(1) *Cyathophyllum basaltiforme* (F. A. Römer) Frech, 1885[1], p. 43, pl. iv, fig. 8. Upper Devonian: Rübeland, Grund, Stollberg, etc., Germany.

(2) *Cyathophyllum sedgwicki* Edwards & Haime, 1851, p. 387, and 1853, p. 231, pl. lii, figs. 3, 3a. *Ex* Devonian: Babbacombe Beach, Torquay, Devonshire, England.

(3) *Hexagonaria laxa* Gürich, 1896, p. 172, pl. iv, fig. 5. Middle Devonian: Dziwki, Poland.

(4) *Cyathophyllum hexagonum* Goldfuss partim, 1826, p. 61, pl. xix, figs. 5e, f, pl. xx, figs. 1a, b (but excluding pl. xix, figs. 5a–d). Middle Devonian: Eifel district and Bensberg, Germany.

GENOLECTOTYPE (here chosen):—*Cyathophyllum hexagonum* Goldfuss.

REMARKS. Lang & Smith, 1935[2], p. 550, have chosen the specimen figured by Goldfuss, 1826, pl. xx, figs. 1a, b, as lectotype of *Cyathophyllum hexagonum* Goldfuss. See *Hexagoniophyllum* Gürich, *Polyphyllum* de Fromentel, and *Prismatophyllum* Simpson.

HEXAGONIELLA Gürich, 1896, p. 500, pro *Hexagonaria* Gürich, 1896, p. 171.

HEXAGONIOPHYLLUM Gürich, 1909, p. 102.

GENOHOLOTYPE (by monotypy):—*H. hexagonum* (Goldfuss), Gürich, 1909, p. 102, pl. xxx, figs. 3a, b=*Cyathophyllum hexagonum* Goldfuss partim, 1826, p. 61, pl. xix, figs. 5e, f, pl. xx, figs. 1a, b (but excluding pl. xix, figs. 5a–d). Middle Devonian: Eifel district and Bensberg, Germany.

REMARKS. Gürich refers to Goldfuss's species as *Hexagoniophyllum hexagonum* Goldfuss, but does not cite any of Goldfuss's figures. His diagnosis, however, restricts the types to the cerioid, and excludes the simple and feebly compound forms.

Gürich clearly intended *Hexagoniophyllum* to replace *Hexagonaria* Gürich, 1896, but by Article XXXII of the International Rules of Zoological Nomenclature, a generic or specific name once published cannot be rejected even by its own author. In any case, the genus is an absolute synonym of *Hexagonaria* Gürich.

HEXALASMA Soshkina—see *Hexelasma* Soshkina.

HEXAPHYLLIA Stuckenberg, 1904, pp. 5, 60, 72.

GENOHOLOTYPE (by monotypy):—*H. prismatica* Stuckenberg, 1904, pp. 5, 60, 72, pl. iii, figs. 5a–d. Carboniferous, Kohlenkalk: Dorf Ploskaja (left bank of the River Pronja, Kreis Wenew, Government of Tula), and Dorf Pochwisnewa (left bank of the River Tarussa, Kreis Tarussa, Government of Kaluga), Russia.

*HEXAPORITES Pander, 1830, p. 106, pl. i, fig. 5, pl. xxix, fig. 8, "untersten Schichten des Kalkes," [Ordovician], at Peselowa [=Pjaselevo], near Pawlowsk, south of Djetskoje Sjelo, 15 miles south of Leningrad, Russia. No species is named.

REMARKS. The figure probably indicates a cystid. Quenstedt, 1878, p. 12, pl. cxliii, fig. 14, described and figured *Hexaporites fungiformis* Leuchtenberg MS. in Eichwald, 1846, p. 370 (a nomen nudum), and his figure shows it to be a cystid, although Quenstedt retains it as a coral. Eichwald, 1860, p. 478, makes it a variety of *Chaetetes hemisphaericus* Eichwald, which according to him=*Favosites petropolitanus* Pander partim.

HEXELASMA as *Hexalasma* [sic] Soshkina, 1928, p. 365—pre-occupied by *Hexelasma* Hoek, 1915, p. 244, for a Recent cirripede.

GENOHOLOTYPE (by monotypy):—*H. primitivum* Soshkina, 1928, p. 366, pl. xii, figs. 10, 11, text-figs. 11a–d on p. 366. Lower Permian: River Shchughor, Northern Ural Mountains, U.S.S.R.

HEXORYGMAPHYLLUM Ludwig, 1865–1866, pp. 139, 144, 174–180—see under R. Ludwig, 1865–1866, in "Literature."

*HIPPURITES Lamarck, 1801, p. 104, a Cretaceous lamellibranch.

GENOHOLOTYPE (by monotypy):—*H. bioculatus* Lamarck.

REMARKS. Schlotheim, 1820, p. 351, describes under *Hyppurites* [sic] both corals and rudistids.

HISTIOPHYLLUM Thomson, 1879, p. 323.

GENOLECTOTYPE (see Gregory, 1917, pp. 223, 230):—*H. ramsayi* Thomson, 1879, p. 330, pl. i, figs. 1, 1a. Lower Carboniferous, Viséan: Brockley, near Lesmahagow, Lanarkshire, Scotland.

REMARKS. Thomson, 1883, p. 463, uses the words "the typical species" in such a vague way that it is impossible to state to which species he is referring. Gregory's choice is, therefore, valid. Hill, 1938[2], p. 65, includes the genus in *Dibunophyllum* Thomson & Nicholson.

HOLMOPHYLLUM Wedekind, 1927, p. 30.

GENOHOLOTYPE (by author's original designation, explanation of pl. iv, figs. 6–8):—*H. holmi* Wedekind, 1927, p. 31, pl. iv, figs. 6–8, pl. xxix, fig. 16. Silurian, Pilophyllumstufe: Lau backar, Isle of Gotland, Sweden.

HOLOPHRAGMA Lindström, 1896[2], p. 35.

GENOHOLOTYPE (by monotypy):—*Hallia calceoloides* partim Lindström, 1866[1], p. 289, pl. xxxi, figs. 9–11 only (non figs. 12, 13, which are opercula of

Araeopoma Lindström). Silurian, Salopian [Upper Visby Marls and Högklint Limestone]: Isle of Gotland, Sweden.

REMARKS. See also *Araeopoma* Lindström.

HOMALOPHYLLUM Simpson, 1900, p. 221.

GENOHOLOTYPE (by author's original designation):—*Zaphrentis ungula* Rominger, 1876 [?1877], p. 151, pl. liii, lower tier, two right-hand specimens. Middle Devonian, "Upper Helderberg Group" [Onondaga Limestone]: Falls of the Ohio; and "rarely in the drift of Michigan," U.S.A.

HOUGHTONIA Rominger, 1876 [?1877], p. 18.

GENOLECTOTYPE (see Bassler, 1915, p. 154):—*H. huronica* Rominger, 1876 [?1877], p. 18, pl. iii, figs. 3, 4. Upper Ordovician, Hudson River Group: Drummond Island, Michigan, U.S.A.; and Upper Ordovician, Cincinnati Group: Madison Indiana, U.S.A.

REMARKS. Lindström, 1883[3], p. 10, Miller, 1889, p. 193, Bassler, 1915, p. 154, and Cox, 1936, p. 1, consider *Houghtonia* a synonym of *Calapoecia* Billings, a view with which we concur.

*HYDNOPHORA Fischer von Waldheim, 1807, p. 295, a Recent hexacoral.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. xxxviii):—*H. demidovii* Fischer von Waldheim, 1807, p. 295, pl. iv (only figure), and 1837, p. 156, pl. xxxii. Recent: East Indies.

REMARKS. Fischer von Waldheim, 1807, p. 295, clearly founded *Hydnophora* on *H. demidovii*, although he mentions two other species, and Edwards & Haime designated that species as genotype of the genus. A species of Carboniferous coral was referred to the genus, as *Hydnopora* [sic], by Phillips, 1836, p. 202—*v. inf.*

HYDNOPORA [sic] Phillips, 1836, p. 202, pl. ii, figs. 9, 10, presumably for *Hydnophora* Fischer von Waldheim.

REMARKS. Phillips, 1836, p. 202, pl. ii, figs. 9, 10, describes and figures a coral from the Lower Carboniferous [*Dibunophyllum* zone, D_3] of Northumberland as *Hydnopora* ? [sic] *cyclostoma*, but in placing a note of interrogation after the generic name, it is almost certain he was referring the species to an already established genus. Bronn, 1848, p. 600, clearly took this view. See *Microcyathus* Hinde.

HYPPURITES Schlotheim, 1820, p. 351—see *Hippurites* Lamarck.

HUMBOLDTIA Stuckenberg, 1895, pp. 115, 224.

GENOHOLOTYPE (by monotypy):—*H. rossica* Stuckenberg, 1895, pp. 115, 225, pl. vii, fig. 5, pl. xviii, fig. 1. Carboniferous, Unter Kohlenkalk: Ural Mountains, Russia.

IRANOPHYLLUM Douglas, 1936, pp. 14, 17.

GENOHOLOTYPE (by author's original designation, pp. 14, 18):—*I. splendens* Douglas, 1936, p. 18, pl. i, figs. 4, 4a, 5. Permo-Carboniferous: Tapileh Valley, Darreh Duzdun, South-West Persia (Iran).

IVANOVIA Dobrolyubova, 1935[1], pp. 10, 12, and 1935[2], pp. 12, 14, 35, 45.
GENOHOLOTYPE (by author's original designation, 1935[2], p. 36):—*I. podolskiensis* Dobrolyubova, 1935[1], p. 12, pl. xii, figs. 1, 2, and 1935[2], pp. 14, 35, 45, pl. xii, figs. 1, 2. Middle Carboniferous, Podolsk horizon, C_2^3: Stshurovo, and Severka River, Moscow Basin, U.S.S.R.

*JANIA Lamouroux, 1813, p. 186. A genus of Recent calcareous algae, to which McCoy referred certain Carboniferous corals thinking that they were plants. He afterwards (1847, p. 227) included these species in the coral genus *Cladochonus* McCoy, q.v.

KAZANIA Stuckenberg, 1895, pp. 20, 183.
GENOSYNTYPES:—
(1) *K. elegantissima* Stuckenberg, 1895, pp. 20, 183, pl. iv, fig. 2. Upper Carboniferous, Ober Kohlenkalkstein: Ural Mountains, Russia.
(2) *K. grünewaldti* Stuckenberg, 1895, pp. 21, 184, pl. iv, fig. 3. Upper Carboniferous, Ober Kohlenkalk: Ural Mountains, Russia.
(3) *K. ufimiana* Stuckenberg, 1895, pp. 22, 184, pl. xviii, fig. 2. Upper Carboniferous, Kalkstein: Ural Mountains, Russia.
GENOLECTOTYPE (here chosen):—*K. elegantissima* Stuckenberg.
REMARKS. The systematic position of this genus is uncertain: it may not be a coral.

KENOPHYLLUM Dybowski—see *Cenophyllum* Dybowski.

KERIOPHYLLUM Wedekind—see *Ceriophyllum* Wedekind.

KETOPHYLLUM Wedekind—see *Cetophyllum* Wedekind.

KEYSERLINGOPHYLLUM Stuckenberg, 1895, pp. 101, 219.
GENOSYNTYPES:—
(1) *Cystiphyllum obliquum* Keyserling, 1846, p. 160, pl. i, figs. 5a–d. Upper Carboniferous: River Soptjussa, Russia.
(2) *K. lepechini* Stuckenberg, 1895, pp. 103, 220, pl. xi, fig. 7. Upper Carboniferous, Ober Kohlenkalk: Ural Mountains, Russia.
GENOLECTOTYPE (here chosen):—*C. obliquum* Keyserling.

KHMERIA Mansuy, 1914, p. 53.
GENOHOLOTYPE (by monotypy):—*K. problematica* Mansuy, 1914, p. 53, pl. i, figs. 11a–g, pl. ii, figs. 1a–p, 2a–c, pl. v, figs. 5a–i, pl. vi, figs. 1a–h. Permian, Productus Limestone: Phnom Ta Kreem, Phnom Ta Maol, Phnom Miaï, Cambodge, Indo-China.
REMARKS. Mansuy referred the genus tentatively to a new form of operculate coelenterates, probably not a Rugose coral. Nevertheless, Yabe & Ma, 1932, p. 65, state, "We are inclined also to the view that it [*Khmeria problematica*] may be an operculate coral."

KIAEROPHYLLUM Wedekind, 1927, pp. 16, 17.
GENOHOLOTYPE (by author's original designation):—*K. kiaeri* Wedekind, 1927, p. 17, pl. i, figs. 7–9. Lower Silurian: Stavnestangen, Tyrifjord, Norway.

KIONELASMA Simpson—see *Cionelasma* Simpson.

KIONOPHYLLUM Chi—see *Cionophyllum* Chi.

KODONOPHYLLUM Wedekind—see *Codonophyllum* Wedekind.

KONINCKOCARINIA Dobrolyubova, 1937, pp. 14, 51, and 77, as sub-genus of *Koninckophyllum* Thomson & Nicholson.

GENOHOLOTYPE (by author's original designation):—*K. flexuosa* Dobrolyubova, 1937, pp. 52, 77, pl. xi, figs. 11–15. Middle Carboniferous, C_2^3: Stshurovo, Moscow Basin, Russia.

KONINCKOPHYLLUM Thomson & Nicholson, 1876[1], p. 297. (See also Nicholson & Thomson, 1876[1], p. 119.)

GENOLECTOTYPE (see Thomson, 1883, p. 419):—*K. magnificum* Thomson & Nicholson, 1876[1], pp. 303–4, pl. viii, figs. 8, 8a, b, pl. xii, figs. 2, 2a. Lower Carboniferous, Viséan: Charleston, Fifeshire, Scotland.

REMARKS. *K. magnificum* is also described and figured in Nicholson & Thomson, 1876[1], p. 121, pl. i, figs. 2, 2a, and they there add Brockley, near Lesmahagow, as a locality whence their specimens came. For the reasons given on p. 222 we believe that Thomson & Nicholson, 1876[1], p. 297, antedates Nicholson & Thomson, 1876[1], p. 119. See also *Lophophyllum* Edwards & Haime.

KOREANOPORA Ozaki, 1934, p. 68.

GENOHOLOTYPE (by author's original designation):—*K. proporoides* Ozaki, 1934, p. 68, pl. xi, figs. 4–6. Silurian, Ken-niho Limestone-conglomerate: near Sindô and Keihori, about 2 km. north-east of Ken-niho, North-Western Korea.

REMARKS. We consider the genus synonymous with *Propora* Edwards & Haime.

KUEICHOUPHYLLUM Yü, 1931, p. 23, as sub-genus of *Palaeosmilia* Edwards & Haime.

GENOHOLOTYPE (by author's original designation):—*K. sinense* Yü, 1931, p. 24, text-figs. 3a, b. Lower Carboniferous: 3 li west of Jung-tung, Ting-fan-hsien, Kueichow Province, China.

REMARKS. See also Yü, 1933 [1934], p. 69, and Yü, 1937, p. 15. The characters of *Kueichouphyllum* are intermediate between those of *Palaeosmilia* Edwards & Haime and *Heterocaninia* Yabe & Hayasaka. We would include *Yabeella* Yü in *Kueichouphyllum.*

KUEICHOWPORA Chi, 1933, p. 22.

GENOHOLOTYPE (by author's original designation):—*K. tushanensis* Chi, 1933, p. 22, pl. v, figs. 2a–d. Lower Carboniferous, Fengninian System: on the side of Lanchai, Tushanhsien, Kueichow Province, China.

KUMATIOPHYLLUM Thomson—see *Cymatiophyllum* Thomson.

KUNTHIA Schlüter, 1885[1], p. 7.
GENOHOLOTYPE (by monotypy):—*K. crateriformis* Schlüter, 1885[1], p. 7, and 1889, p. 4, pl. i, figs. 10, 11. Middle Devonian, Jünkerather-Mulde: Esch, Eifel district, Germany.

KURNATIOPHYLLUM Thomson—see *Cymatiophyllum* Thomson.

KWANGSIPHYLLUM Grabau & Yoh in Yoh, 1931, p. 79, nom. nov. for *Syringophyllum* Grabau & Yoh in Yoh, 1929[2], p. 1.
GENOHOLOTYPE (genoholotype of *Syringophyllum* Grabau & Yoh by monotypy):—*Syringophyllum permicum* Grabau & Yoh in Yoh, 1929[2], p. 2, pl. i, figs. 1, 1a, b, pl. ii, figs. 1, 1a, b. Lower Permian, *Tetrapora* bed: about 1 li south-west of Ho-Mu-Shih, Jung Hsien, North Kwangsi, China.

KYPHOPHYLLUM Wedekind—see *Cyphophyllum* Wedekind.

LABYRINTHITES Lambe, 1906, p. 327.
GENOHOLOTYPE (by monotypy):—*L. chidlensis* Lambe, 1906, p. 328, text-fig. on p. 328. Ordovician: Cape Chidley, Hudson Strait, Arctic America.

LACCOPHYLLUM Simpson, 1900, p. 201.
GENOHOLOTYPE (by author's original designation):—*L. acuminatum* Simpson, 1900, p. 201, text-figs. 7–9 on p. 202. Silurian, Niagaran: Perry County, Tennessee, U.S.A.
REMARKS. *Laccophyllum* is a synonym of *Syringaxon* Lindström, q.v.

LACERIPORA Eichwald—see *Laceropora* Eichwald.

LACEROPORA as *Laceripora* [sic] Eichwald, 1854, p. 85.
GENOHOLOTYPE (by monotypy):—*L. cribrosa* Eichwald, 1854, p. 86, 1855[2], p. 3, pl. xxvi, figs. 17a–d, and 1860, p. 490. [? Silurian]: Hoheneichen, Isle of Oesel, Esthonia.

LAMBEOPHYLLUM Okulitch, 1938, p. 100.
GENOHOLOTYPE (by author's original designation):—*Cyathophyllum profundum* Conrad, 1843, p. 335. Ordovician, lead-bearing limestone [Black River Limestone]: Mineral Point, Wisconsin, U.S.A.
REMARKS. See Hall, 1847, p. 49, pl. xii, figs. 4a–d, and Okulitch, 1938, p. 101, pl. ii, figs. 3, 4, for figures of the genotype.

LAMELLIPORA as *Lamellopora* [sic] Owen, 1844, p. 70.
GENOHOLOTYPE (by monotypy):—*L. infundibularia* Owen, 1844, p. 70, pl. xiv, fig. 1. Silurian, Niagaran, Coralline beds of the Magnesian Cliff Limestones: Iowa and Wisconsin, U.S.A.
REMARKS. Bassler, 1915, p. 1218, identifies the genus with "*Strombodes* Schweigger. Genotype: *S. pentagonus* Goldfuss," i.e., with *Arachniophyllum* Dana (non *Strombodes* Schweigger, of which *S. pentagonus* is not a genosyntype, and therefore cannot be the genotype). *L. infundibularia* cannot be recognised from its description and figure: it may be a stromatoporoid.

LAMINOPORA Jones, 1930, p. 35—pre-occupied by *Laminopora* Michelin, 1842[2], pl. iii, for a polyzoan, and re-named *Angopora* by Jones, 1936[1], p. 18.
GENOHOLOTYPE (by monotypy):—*L. hisingeri* Jones, 1930, p. 35. Silurian, Wenlockian: Isle of Gotland, Sweden, and Shropshire, England.
REMARKS. See *Angopora* Jones.

LAMOTTIA Raymond, 1924, p. 76.
GENOHOLOTYPE (by author's original designation):—*L. heroënsis*, Raymond, 1924, p. 76, pl. i. Ordovician (upper part of the Lower Chazy): 2 miles southwest of the station at South Hero, Vermont (type locality); and Isle La Motte, Vermont, and near the station at Hotel Champlain, south of Plattsburgh, New York, U.S.A.

LAMPROPHYLLUM Wedekind, 1927, pp. 76, 78.
GENOHOLOTYPE (by author's original designation):—*L. de-geeri* Wedekind, 1927, p. 78, pl. xxviii, figs. 1–4. Silurian Marls: Petesvik, Isle of Gotland, Sweden.

LASMOCYATHUS d'Orbigny, 1849[2], p. 12.
GENOHOLOTYPE (by monotypy):—*Astraea aranea* McCoy, 1844, p. 187, pl. xxvii, fig. 6. Lower Carboniferous: Ireland.
REMARKS. *Astraea aranea* is a species of *Lithostrotion* Fleming, and, therefore, *Lasmocyathus* is a synonym of *Lithostrotion*.

LATEPORA Rafinesque, 1819, p. 429.
GENOHOLOTYPE (by monotypy):—*L. alba* Rafinesque, 1819, p. 429. [Devonian]: River Ohio, U.S.A.
REMARKS. The provenance of the species is given only in Rafinesque, 1831, p. 5, when he states it is from "limestone of River Ohio, silicified." He suggests the genus may be "*Lithostrontion* Parkinson" [sic]. From its description the genus is certainly not *Lithostrotion* Fleming, but in our opinion *L. alba* is probably conspecific with *Michelinia convexa* d'Orbigny, 1850, p. 107, from the [Devonian, Onondaga Limestone] of Preston County, Virginia, U.S.A. (see also Edwards & Haime, 1851, p. 251, pl. xvi, fig. 1; Rominger, 1876, [?1877], p. 73, pl. xxvi, figs. 1, 2; and Fenton & Fenton, 1936, p. 38, pl. vi, figs. 5, 6). Until the original material can be re-examined, however, the genus must remain indeterminate.

LECANOPHYLLUM as *Lekanophyllum* [sic] Wedekind, 1923, pp. 29, 35 (genus caelebs), and 1924, p. 29.
GENOSYNTYPES (first species later referred to the genus):—
(1) *L. punctatum* Wedekind, 1924, pp. 30, 34, text-figs. 36–38 on p. 30.
(2) *L. kayseri* Wedekind, 1924, pp. 31, 34, text-figs. 39–42 on p. 31.
(3) *L. auburgense* Wedekind, 1924, pp. 32, 35, text-fig. 43 on p. 32.
(4) *L. dohmi* Wedekind, 1924, pp. 33, 35, text-figs. 44–48 on p. 33.
All from the Lower Middle Devonian, Dohmophyllenstufe: Auburg, near Gerolstein, Eifel district, Germany.
GENOLECTOTYPE (here chosen):—*L. punctatum* Wedekind.

LEGNOPHYLLUM Wedekind, 1924, p. 19, as sub-genus of *Zonophyllum*.
GENOSYNTYPES:—
(1) *Zonophyllum primum* Wedekind, 1924, pp. 12, 20, text-figs. 1–4 on p. 13. Base of Middle Devonian, Nohner Horizon: Nohn, Eifel district, Germany.
(2) *Z. cylindricum* Wedekind, 1924, pp. 12, 20, text-fig. 5 on p. 13. Same horizon and locality.
GENOLECTOTYPE (here chosen):—*Z. cylindricum* Wedekind.

LEKANOPHYLLUM Wedekind—see *Lecanophyllum* Wedekind.

LEPTOINOPHYLLUM Wedekind, 1925, p. 4.
GENOHOLOTYPE (by Wedekind's designation, p. 9):—*L. multiseptatum* Amanshauser MS. in Wedekind, 1925, pp. 4, 9, text-figs. 1, 2 on p. 7 (pl. i). Lower division of the Middle Middle Devonian: Loogh, Eifel district, Germany.
REMARKS. See *Stenophyllum* Amanshauser MS. in Wedekind.

LEPTOPORA Winchell, 1863, p. 3—pre-occupied by *Leptopora* d'Orbigny, 1849[1], p. 504, for a Cretaceous bryozoan.
GENOHOLOTYPE (by author's original designation):—*L. typa* Winchell, 1863, p. 3. Lower Carboniferous, oolitic bed no. 6 (of the Yellow Sandstones below the Burlington Limestone) up to the base of the Burlington Limestone: Burlington, Iowa, U.S.A.
REMARKS. See also White, 1883[1], pp. 121, 122, pl. xxxiv, figs. 12a, b, for figures of the genoholotype. The description of the genus suggests *Vaughania* Garwood, but *L. typa* needs further investigation.

LICHENARIA Winchell & Schuchert, 1895, p. 83.
GENOHOLOTYPE (by author's original designation):—*L. typa* Winchell & Schuchert, 1895, p. 83, pl. G, figs. 10–13. Ordovician, Trenton Shales: near Minneapolis, Minnesota, U.S.A.; and Black River Limestone: Pauquette Rapids, Canada.
REMARKS. See also Sardeson, 1899.

LIMARIA Steininger, 1831, p. 12, and 1834, p. 339—pre-occupied by *Limaria* Link, 1807, p. 157, and *Limaria* Rafinesque, 1815, p. 147, for lamellibranchs.
GENOSYNTYPES:—
(1) *L. clathrata* Steininger, 1831, p. 12, and 1834, p. 339, pl. xx, figs. 6, 6a. Middle Devonian: Gerolstein, Eifel district, Germany (see Steininger, 1849, p. 11).
(2) *L. fruticosa* Steininger, 1831, p. 12, and 1834, p. 339. Middle Devonian: Gerolstein, Eifel district, Germany (see Steininger, 1849, p. 11).
GENOLECTOTYPE (here chosen):—*L. clathrata* Steininger.
REMARKS. In 1831 and 1834, Steininger mentioned no locality for the species, but he was considering only fossils from the Eifel. In 1849, p. 11, he gave as the locality of both species "Zu Gerolstein, und in den Silurien Schichten Englands." The second locality is clearly added from Lonsdale.
Limaria Steininger is probably a synonym of *Coenites* Eichwald, 1829 (q.v.), with which genus Nicholson merged it, 1879, p. 130. But in any case the name is pre-occupied both by *Limaria* Link, 1807, p. 157, and *Limaria* Rafinesque, 1815, p. 147, for lamellibranchs.

LINDSTRÖMIA Nicholson & Thomson, 1876[2], p. 150.

GENOHOLOTYPE (by monotypy):—*L. columnaris* Nicholson & Thomson, 1876[2], p. 150 (no figure or specific description: figured by Nicholson & Etheridge, 1878, p. 84, text-fig. 4b, b[1] on p. 84). Devonian: North America.

REMARKS. *Lindströmia columnaris* is not a nomen nudum since the diagnosis of the genus covers the species also. Nicholson & Etheridge's figures suggest that the genotype may be a species of *Metriophyllum* Edwards & Haime. Willoughby, 1938, p. 113, has already drawn attention to Grabau's erroneous conclusion, 1928, p. 112, that *Petraia subduplicata* McCoy and *L. laevis* Nicholson & Etheridge "must be taken as the types of the genus."

LINIPORA Troost—see *Linopora* Troost.

LINOPORA as *Linipora* [sic] Troost, 1840, p. 64.

GENOHOLOTYPE (by monotypy):—*L. rotunda* Troost, 1840, p. 64. Silurian: Brown's Port, Perry County, Tennessee, U.S.A.

REMARKS. Bassler, 1915, p. 742, says that *L. rotunda* Troost is "not recognisable."

LIOBLASTOCYATHUS Ludwig, 1866, pp. 188, 222–224—see R. Ludwig, 1865–1866, under "Literature."

LIOBLASTOLOPAS Ludwig, 1866, p. 224—see R. Ludwig, 1865–1866, under "Literature."

LIOCALAMOCYATHUS Ludwig, 1866, p. 214—see R. Ludwig, 1865–1866, under "Literature."

LIOCHARTOCYATHUS Ludwig, 1866, pp. 189, 231—see R. Ludwig, 1865–1866, under "Literature."

LIOCYATHUS Ludwig, 1865–1866, pp. 139, 184, 187, 191–194—see R. Ludwig, 1865–1866, under "Literature."

LIODENDROCYATHUS Ludwig, 1866, pp. 188, 213—see R. Ludwig, 1865–1866, under "Literature."

LIODENDROLOPAS Ludwig, 1866, pp. 214–215—see R. Ludwig, 1865–1866, under "Literature."

LIOPHLOEOCYATHUS Ludwig, 1866, pp. 189, 235—see R. Ludwig, 1865–1866, under "Literature."

LIOPLACOCYATHUS Ludwig, 1866, pp. 190, 242—see R. Ludwig, 1865–1866, under "Literature."

LIOPORA as *Lyopora* [sic] Nicholson & Etheridge, 1878, p. 25 (non *Liopora* Girty, 1915, p. 341, a Palaeozoic polyzoan).

GENOHOLOTYPE (by monotypy):—*Palaeopora*? [sic] *favosa* McCoy, 1850, p. 285, described and figured as *Palaeopora favosa* McCoy, 1851, p. 15, pl. 1c, figs. 3, 3a–d. Ordovician limestone and shale: Craighead, near Girvan, Ayrshire, Scotland.

LIOTHROMBOCYATHUS Ludwig, 1866, p. 190—see R. Ludwig, 1865–1866, under "Literature."

*LITHODENDRON Schweigger, 1819, table vi—a Recent hexacoral.
GENOLECTOTYPE (see Lang & Smith, 1935[2], p. 551):—*Madrepora angulosa* Esper, 1788, p. 92. Recent.
REMARKS. See Lang & Smith, 1935[2], p. 551. The name *Lithodendron* was used by early British writers for phaceloid species of *Lithostrotion* Fleming.

LITHODRUMUS Greene—see *Lithodrymus* Greene.

LITHODRYMUS as *Lithodrumus* [sic] Greene, 1904, p. 168.
GENOHOLOTYPE (by author's original designation):—*L. veryi* Greene, 1904, p. 168, pl. xlix, lower figure. Carboniferous, St. Louis Group: four miles south-east of Mammoth Cave, Kentucky, U.S.A.

LITHOPHYLLUM as *Lythophyllum* [sic] Wedekind, 1925, p. 32.
GENOHOLOTYPE (by author's original description):—*L. marginatum* Wedekind, 1925, pp. 32, 33, text-figs. 32, 33 on p. 25 (pl. vi). Middle Devonian, Untere Stenophyllenschichten: Dachsberg, near Gerolstein, Eifel district, Germany.

LITHOSTROMA Rafinesque MS. in Brongniart, 1829, p. 431.
GENOHOLOTYPE (by monotypy):—*L. incurvata* Rafinesque MS. in Brongniart, 1829, p. 431, nom. nov. for *Columnaria sulcata* Goldfuss, 1826, p. 72, pl. xxiv, figs. 9 a–c. Middle Devonian: Paffrath, near Bensberg, Rhenish Prussia, Germany.
REMARKS. *C. sulcata* is the genotype of *Columnaria* Goldfuss, and, therefore, *Lithostroma* is an absolute synonym of *Columnaria*.

LITHOSTRONTION Hall, 1852[2], p. 408—errore pro *Lithostrotion* Fleming.

LITHOSTROTION Fleming, 1828, p. 508.
GENOLECTOTYPE:—*L. striatum* Fleming, 1828, p. 508=*Lithostrotion sive basaltes minimus striatus et stellatus* Lhuyd, 1699, p. 124, pl. xvi; 1760, p. 125, pl. xxiii=*Madrepora vorticalis* Parkinson, 1808, p. 45. Lower Carboniferous: British Isles.
REMARKS. The genolectotype was standardised as *Lithostrotion striatum* instead of *L. floriforme* (Martin), chosen by Lonsdale, 1845[1], p. 602, by the International Commission of Zoological Nomenclature, Jan. 10th, 1931, Opinion 117.

Parkinson, 1808, pp. 42–45, used the name "*lithostrotion*," but not in a generic sense. The genus of his species *vorticale* was *Madrepora*. His *M. vorticale* is prior to Fleming's *L. striatum*, and thus *Lithostrotion vorticale* Parkinson is the proper name for this form. See *Cystidendron* Schindewolf,

Cystistrotion Schindewolf, *Diphyphyllum* Lonsdale, *Fischerina* Stuckenberg, *Lasmocyathus* d'Orbigny, *Nematophyllum* McCoy, *Petalaxis* Edwards & Haime, *Siphonodendron* McCoy, *Stylastraea* Lonsdale, *Stylaxis* McCoy, and *Stylostrotion* Chi.

LITHOSTROTIONELLA Yabe & Hayasaka, 1915, p. 94, as sub-genus of *Lithostrotion*.

GENOHOLOTYPE (by monotypy):—*L. unicum* Yabe & Hayasaka, 1915, p. 133, and 1920, pl. ix, figs. 12a, b. "Carboniferous?" [sic] [Permian, Chihsia Limestone, zone of *Tetrapora elegantula*]: Kung-shan, Hui-tso-hsien, Province of Yun-nan, S. China.

LITOPHYLLUM Etheridge, 1899[2], p. 178.

GENOHOLOTYPE (by author's original designation):—*Amplexipora konincki* Etheridge & Foord, 1884[2], p. 178, pl. vi, figs. 3, 3a–c. Devonian: Regan's allotment, Northern railway, 31 miles from Townsville, North Queensland, Australia.

LOEPOPHYLLUM as *Loipophyllum* [sic] Wedekind, 1925, p. 55, as sub-genus of *Neospongophyllum*.

GENOHOLOTYPE (by author's original designation):—*L. kerpense* Wedekind, 1925, pp. 55, 56, text-figs. 80, 81 on p. 53 (pl. xiv). Lower Middle Devonian, upper half of the Leptoinophyllenstufe: Kerpen, Eifel district, Germany.

LOIPOPHYLLUM Wedekind—see *Loepophyllum* Wedekind.

LONSDALEIA McCoy, 1849 (January), p. 11.

GENOHOLOTYPE (by author's original designation, p. 12):—*Erismatolithus Madreporites* (*duplicatus*) Martin, 1809, p. 20, pl. xxx, figs. 1, 2. Lower Carboniferous [Viséan]: Bakewell, etc., Derbyshire, England.

REMARKS. For particulars of the genus, see Smith, 1916[1].

Martin's specimen of *Erismatolithus Madreporites* (*duplicatus*) is lost, and therefore Smith, 1916[1], p. 268, explanation of pl. xvii, fig. 1, chose as neotype the specimen (Sedgwick Museum, A.2419) there figured.

See also *Actinocyathus* d'Orbigny, *Axophyllum* Edwards & Haime, *Cystiphorastraea* Dobrolyubova, *Polythecalis* Yabe & Hayasaka, *Protolonsdaleia* Lissitzin, and *Stylidophyllum* de Fromentel.

LONSDALEIASTRAEA Gerth, 1921, p. 77.

GENOHOLOTYPE (by monotypy):—*L. vinassai* Gerth, 1921, p. 77, pl. cxlv, figs. 6, 7. Permian: Poetain, Timor.

REMARKS. In our opinion *Lonsdaleiastraea* is a synonym of *Polythecalis* Yabe & Hayasaka.

LONSDALEOIDES Heritsch, 1936, p. 128.

GENOHOLOTYPE (by author's original designation):—*L. boswelli* Heritsch, 1936, p. 129, text-fig. 33 on p. 129 (text-fig. pl. iii). Permian, Lower *Schwagerina* Limestone: near the Zollner Lake, Carnic Alps, Austria.

LONSDALIA [sic] d'Orbigny, 1849[2] (October), p. 12—pre-occupied by *Lonsdaleia* McCoy, 1849 (January), p. 11, for a rugose coral.

GENOHOLOTYPE (by monotypy):—*Porites inordinatus* Lonsdale, 1839, p. 687, pl. xvi bis, figs. 12, 12a–c. Ordovician, "Llandeilo Flags": Robeston Walthen, Pembrokeshire, Wales.

REMARKS. This is a Heliolitid.

LOPHOCARINOPHYLLUM Grabau, 1922, pp. 46, 51, as sub-genus of *Lophophyllum*.

GENOHOLOTYPE (by author's original designation, p. 46):—*L. acanthiseptum* Grabau, 1922, p. 51, pl. i, figs, 6a–c, 7a, c, and e, 8a, c and e, 9a, c, e, and f, 10c, 11c, 18–21, and text-figs. 58, 59 on p. 53, 60 on p. 54, and 61–65 on p. 56. Carboniferous, probably late Dinantian [Taiyuan Series]: Ch'i-Ts'un and Tung-Chuang, I-Hsien, Shantung, and other localities in China, from beds referred to late Viséan.

LOPHODIBUNOPHYLLUM Lissitzin, 1925, p. 68—errore pro *Lophophyllum* Edwards & Haime.

LOPHELASMA as *Lopholasma* [sic] Simpson, 1900, p. 206.

GENOHOLOTYPE (by author's original designation):—*L. carinatum* Simpson, 1900, p. 206, text-figs. 19, 20 on p. 206, and 21, 22 on p. 207=*Streptelasma rectum* Hall, 1876 [?1877], pl. xix, figs. 1–13 partim. Middle Devonian, Hamilton Shales: various localities in western New York, U.S.A.

REMARKS. Simpson does not specify which of Hall's figures are *Lopholasma carinatum* and which he retains in Hall's species as *Stereoelasma rectum*, although he clearly excludes from the former *Strombodes*? [sic] *rectus* Hall, 1843 (see Simpson, 1900, p. 205). In our opinion, *L. carinatum* and *S. rectum*, are conspecific (see *Stereoelasma* Hall). *L. carinatum* Simpson agrees with *Metriophyllum bouchardi* Edwards & Haime, the genotype of *Metriophyllum* Edwards & Haime, in all essential characters, and differs from it only in size and unimportant details. Thus, *Lophelasma* is a synonym of *Stereoelasma* and of *Metriophyllum*.

LOPHOLASMA Simpson—see *Lophelasma* Simpson.

LOPHOPHRENTIS Chi, 1935, p. 18.

GENOHOLOTYPE (by author's original designation):—*L. trilobata* Chi, 1935, p. 18, pl. i, figs. 6a, b, text-figs. 1a, b. Lower Carboniferous, Weiningian System: Taloshan, near Szumenshii, Lochenghsien, Kwangsi, China.

LOPHOPHYLLIDIUM Grabau, 1928, p. 98.

GENOHOLOTYPE (by author's original designation):—*Cyathaxonia prolifera* McChesney, 1860, p. 75, and 1865, pl. ii, figs. 1–3. Upper Carboniferous, [Pennsylvanian], "Coal Measures": 8 miles south of Springfield, Illinois, U.S.A. [This is probably conspecific with *Cyathaxonia profunda* Edwards & Haime, 1851, p. 323, from the Upper Carboniferous, Pennsylvanian, Flint Ridge, Ohio, U.S.A., but that species was founded on a calice mould.]

REMARKS. The genus is closely allied to *Sinophyllum* Grabau, q.v.

LOPHOPHYLLOIDES Stuckenberg, 1904, pp. 34, 91.

GENOHOLOTYPE (by monotypy):—*L. schellwieni* Stuckenberg, 1904, pp. 34, 92, pl. vii, figs. 11a–d. Carboniferous: Government of Tula, Russia.

LOPHOPHYLLUM Edwards & Haime, 1850, p. lxvi.

GENOHOLOTYPE (by authors' original designation):—*L. konincki* Edwards & Haime, 1850, p. lxvi, and 1851, p. 349, pl. iii, figs. 4, 4a. Lower Carboniferous, Tournaisian: Tournai, Belgium.

REMARKS. Carruthers, 1913, p. 50, considered that *L. konincki* is conspecific with *Cyathaxonia tortuosa* Michelin, 1847, p. 258, pl. lix, fig. 8, from the same horizon and locality. Smith, 1933, p. 129, agreed with A. Vaughan, 1915, p. 39, that the two species were distinct, and considered *L. konincki* to be congeneric with *Cyathaxonia prolifera* McChesney, 1860, p. 75, the genotype of *Lophophyllidium* Grabau. We, however, have recently examined material from Tournai, and the result of this investigation supports Carruthers's contention. Nevertheless, the validity of his view will finally depend on a re-examination of the types of *L. konincki*. Carruthers also held that *L. konincki* is congeneric with *Koninckophyllum magnificum* Thomson & Nicholson, 1876[1], pp. 303–304, pl. viii, figs. 8, 8a, b, pl. xii, figs. 2, 2a, the genotype of *Koninckophyllum* Thomson & Nicholson, but for the present we defer expressing an opinion on this. See *Eostrotion* Vaughan.

*LOPHOSERIS Edwards & Haime, 1849[1], p. 72—a Recent hexacoral.

GENOHOLOTYPE (by authors' original designation):—*Pavonia boletiformis* Lamarck, 1816, p. 240. Recent.

REMARKS. Eichwald, 1855[1], p. 446, described a fossil Heliolitid under this Recent genus.

LOUSDALIA d'Orbigny, 1850, p. 25—errore pro *Lonsdalia* d'Orbigny, 1849.

LOYOLOPHYLLUM Chapman, 1914, p. 306, as sub-genus of *Columnaria* Goldfuss.

GENOHOLOTYPE (by monotypy):—*C.* (*Loyolophyllum*) *cresswelli* Chapman, 1914, p. 306, pl. li, figs. 15, 16, pl. lii, figs. 17, 18. Silurian: Griffith's Quarry, Loyola, near Mansfield, Victoria, Australia.

LYCOCYSTIPHYLLUM as *Lykocystiphyllum* [sic] Wedekind, 1927, pp. 69, 73.

GENOSYNTYPES:—

(1) *L. gracile* Wedekind, 1927, pp. 69, 73, pl. xxiii, figs. 13–16. Silurian, Horizon II of Hedström: Snäckgärdsbaden, and Högklint, Isle of Gotland, Sweden.

(2) *L. högklinti* Wedekind, 1927, p. 73, pl. xxiii, figs. 6–9. Silurian, Dino-Chonophyllenmergel: Högklint, Isle of Gotland, Sweden.

(3) *L. oppositum* Wedekind, 1927, p. 73, pl. xxiii, figs. 10–12, pl. iv, fig. 5. Silurian, Horizon III of Hedström: north-west coast of the Isle of Gotland, Sweden.

(4) *Lycocystiphyllum* sp. Wedekind, 1927, pl. xxiii, fig. 17. Silurian, Stricklandiniamergel: the harbour, Visby, Isle of Gotland, Sweden.

GENOLECTOTYPE (here chosen):—*L. gracile* Wedekind.
REMARKS. We consider the genus a synonym of *Lycophyllum* Wedekind, i.e., *Phaulactis* Ryder.

LYCOPHYLLUM as *Lykophyllum* [sic] Wedekind, 1927, pp. 68, 71.
GENOHOLOTYPE (by author's original designation, explanation of pl. xxii, figs. 1–4):—*L. tabulatum* Wedekind, 1927, pp. 68, 72, pl. xxii, figs. 1–4, pl. xxv, figs. 2, 3. Silurian, Dino-Chonophyllenmergel, Horizon II of Hedström: Fischerdorf Brisund, Visby, and Nygårdsbäcken, Isle of Gotland, Sweden.
REMARKS. *Lycophyllum* Wedekind is a synonym of *Phaulactis* Ryder. Wedekind, 1927, p. 94, states "*Phaulactis* könnte mit *Lykophyllum* [sic] identisch sein."

LYELLIA Edwards & Haime, 1851, pp. 150, 226.
GENOLECTOTYPE (see Miller, 1889, p. 195):—*L. americana* Edwards & Haime, 1851, p. 226, pl. xiv, figs. 3, 3a. Silurian: Drummond Island, Lake Huron, U.S.A.
REMARKS. Lindström, 1899, pp. 89, 91, merges *L. americana* in *Propora tubulata* Lonsdale, making *Lyellia* a synonym of *Propora* Edwards & Haime.

LYKOCYSTIPHYLLUM Wedekind—see *Lycocystiphyllum* Wedekind.

LYKOPHYLLUM Wedekind—see *Lycophyllum* Wedekind.

LYLIOPHYLLUM Kelus, 1939, p. 37.
GENOHOLOTYPE (by author's original designation as "Phenotypus"):—*L. pulcherrimum* Kelus, 1939, p. 39, pl. iii, figs. 19, 20, 24. Middle Devonian: Kamieniarnia, Volhynia, Poland.

LYOPORA Nicholson & Etheridge—see *Liopora* Nicholson & Etheridge.

LYRIELASMA Hill, 1939[1], p. 243.
GENOHOLOTYPE (by author's original designation):—*Cyathophyllum subcaespitosum* Chapman, 1925, p. 112, pl. xiii, figs. 15, 16a, b. Silurian [? Devonian]: Cave Hill, Lilydale, Victoria, Australia.

LYTHOPHYLLUM Wedekind—see *Lithophyllum* Wedekind.

LYTVELASMA as *Lytvolasma* [sic] Soshkina, 1925, p. 82.
GENOHOLOTYPE (by monotypy):—*L. asymetricum* Soshkina, 1925, p. 82, pl. i, figs. 1, 1a, b. Permian: right bank of the River Lytva, 6 versts from Usine d'Alexandrovsk, Government of Perm, U.S.S.R.

LYTVOLASMA Soshkina—see *Lytvelasma* Soshkina.

MACGEEA Webster, 1889[2], p. 710.
GENOLECTOTYPE (see Fenton & Fenton, 1924, p. 54):—*Pachyphyllum solitarium* Hall & Whitfield, 1873, p. 232, pl. ix, figs. 6, 7. Upper Devonian, Rockford Shales: Hackberry, Iowa, U.S.A.
REMARKS. See Lang & Smith, 1935[2], p. 552.

*MADREPORA Linnaeus, 1758, p. 793, a genus of Recent hexacorals.
GENOLECTOTYPE (see Verrill, 1902[1], p. 110):—*M. oculata* Linnaeus, 1758, p. 793, a Recent hexacoral.
REMARKS. *Madrepora* was founded by Linnaeus with twenty-five genosyntypes, which included both Recent and fossil corals. In the eighteenth and early nineteenth centuries, Palaeozoic rugose corals were often referred to this genus.

MADREPORITES—form of *Madrepora* used by early writers to denote fossil forms. See *Acroporites*.

MALONOPHYLLUM Okulitch & Albritton, 1937, p. 24.
GENOHOLOTYPE (by authors' original designation):—*M. texanum* Okulitch & Albritton, 1937, p. 24, pl. iv, figs. 15–17. Permian, Leonard Formation: north-west end of Malone Hills, 1½ miles north of Torcer Station on the Texas and Pacific Railway, Hudspeth County, Texas, U.S.A.

*MANON Oken, 1815, p. 76, a genus of Recent sponges.
GENOSYNTYPES:—Eight Recent sponges.
REMARKS. Goldfuss, 1826, p. 4, pl. i, figs. 11a, b, described a rugose coral as *Manon favosum* Goldfuss. He refers the genus to Schweigger, but the latter does not appear to have published the name.

MEDUSAEPHYLLUM F. A. Römer, 1855, p. 33 [145].
GENOHOLOTYPE (by monotypy):—*M. ibergense* F. A. Römer, 1855, p. 33 [145], pl. vi [xxi], fig. 24. Upper Devonian, Iberger Kalk: near Grund, Harz Mountains, Germany.
REMARKS. *M. ibergense* is a species of *Phillipsastraea* d'Orbigny, of which *Medusaephyllum* is therefore a synonym.

MENISCOPHYLLUM Simpson, 1900, p. 199.
GENOHOLOTYPE (by author's original designation):—*M. minutum* Simpson, 1900, p. 200, text-figs. 1–4 on p. 200. Lower Carboniferous, Mississippian, Kinderhook Formation: Rockford [Indiana], U.S.A.
REMARKS. The horizon and locality quoted above are those of the type-specimens.

MENOPHYLLUM Edwards & Haime, 1850, p. lxvi.
GENOHOLOTYPE (by authors' original designation):—*M. tenuimarginatum* Edwards & Haime, 1850, p. lxvi, described and figured by Edwards & Haime, 1851, p. 348, pl. iii, figs. 1, 1a. Lower Carboniferous, Tournaisian: Tournai, Belgium.

MEROPHYLLUM Grabau, 1917[1], p. 199, and 1922, p. 16, a nomen nudum.

MESACTIS Ryder, 1926, pp. 385, 390.
GENOHOLOTYPE (by author's original designation):—*M. glevensis* Ryder, 1926, p. 391, pl. ix, figs. 9–18, pl. x, figs. 1–6. Silurian, Salopian: Brinkmarsh Quarry, near Whitfield, Gloucestershire, England.
REMARKS. Lang & Smith, 1927, p. 471, would merge *Mesactis* with *Phaulactis* Ryder.

MESOPHYLLOIDES Wedekind, 1922[2], p. 51.

GENOLECTOTYPE (see Stumm, 1937, p. 441):—*Mesophyllum* [sic] *richteri* Wedekind, 1922[2], p. 52, pl. i, fig. 2. Middle Devonian, Calceolaschichten: Nimsbachtal, Prüm, Germany.

REMARKS. *Mesophylloides richteri* is, in our opinion, congeneric at least with *Cyathophyllum heterophyllum* Edwards & Haime, 1851, p. 367, pl. x, figs. 1, 1a, b, the genolectotype of *Acanthophyllum* Dybowski. See also *Cosmophyllum* Vollbrecht.

MESOPHYLLUM Schlüter, 1889, p. 325 (non *Mesophyllum* Hahn, 1911, p. 555, a Liassic hexacoral).

GENOLECTOTYPE (see Wedekind, 1925, pp. vii, 28, 38):—*M. defectum* Schlüter, 1889, p. 333, pl. vii, fig. 2=*Actinocystis defecta* Schlüter, 1882, p. 208=*Cyathophyllum vesiculosum* Goldfuss partim, 1826, p. 58, pl. xvii, figs. 5a–e (misquoted by Schlüter as "*Cystiphyllum vesiculosum* . . . tab. vii, fig. 52"). Middle Devonian: Eifel district, and Berndorf, Germany.

REMARKS. Schlüter explicitly states that the section of *M. defectum*, 1889, pl. vii, fig. 2, was cut from one of Goldfuss's originals. *Mesophyllum* includes Devonian corals which have the same structure as *Cystiphyllum* Lonsdale (to which genus they have usually been referred in the past), but which are not related to the genotype of that genus.

MESOPHYLLUM Barrois, 1889. According to the *Nomenclator animalium generum et subgenerum*, 1931, p. 2048, this name was erected by Barrois in *Mém. Soc. géol. Nord*, III, 1889, p. 67; while Waterhouse, 1902, p. 219, also cites "*Mesophyllum*, Barrois, '89, Coel. 19." These entries, however, are incorrect, for the name does not occur in Barrois, 1889.

METRIOPHYLLUM Edwards & Haime, 1850, p. lxix.

GENOHOLOTYPE (by authors' original designation):—*M. bouchardi* Edwards & Haime, 1850, p. lxix, 1851, p. 318 partim, pl. vii, figs. 1, 1a, b (non pl. vii, figs. 2, 2a)=*Cyathophyllum mitratum* (Schlotheim) Michelin, 1845, p. 183, pl. xlvii, fig. 7 (non *Hyppurites* [sic] *mitratum* Schlotheim, 1820, p. 351). Upper Devonian [Frasnian, Ferques Limestone and Schistes de Beaulieu]: Ferques, near Boulogne, France.

REMARKS. We here choose as lectotype of *M. bouchardi* the specimen figured by Edwards & Haime, 1851, pl. vii, figs. 1, 1a. See *Lindströmia* Nicholson & Thomson, *Lophelasma* Simpson, and *Stereoelasma* Simpson.

MEZENIA Stuckenberg, 1895, pp. 130, 230.

GENOHOLOTYPE (by monotypy):—*M. rozeni* Stuckenberg, 1895, pp. 130, 231, pl. xxiv, fig. 14. Carboniferous, Ober Kohlenkalk: Timan, Russia.

REMARKS. The zoological position of the genus is doubtful. It is probably not a coral.

MICHELINELLA Yü & Shu, 1929, pp. 50, 106—a nomen nudum.

MICHELINIA de Koninck, 1841, p. 29 (non *Michelinia* Dujardin & Hupé, 1862, p. 560, a Recent echinoid).

GENOLECTOTYPE (see Edwards & Haime, 1850, p. lx):—*M. tenuisepta* (Phillips) de Koninck, 1841, p. 31, pl. c, figs. 3a, b. Lower Carboniferous: Tournai, Belgium.

REMARKS. Edwards & Haime's definition is de Koninck's interpretation of the species described by Phillips, 1836, p. 201, pl. ii, fig. 30. We agree with Hall and others in considering *Michelinia* and its subgenera synonymous with *Pleurodictyum* Goldfuss. See also *Eumichelinia* Yabe & Hayasaka, *Latepora* Rafinesque, *Procteria* Davis, *Protomichelinia* Yabe & Hayasaka, and *Squameophyllum* Smyth.

MICHELINOPORA Yabe & Hayasaka, 1915, p. 59, as sub-genus of *Michelinia*.

GENOHOLOTYPE (by monotypy):—*M. multitabulata* Yabe & Hayasaka, 1915, p. 59. Permian, Fusulina Limestone: between Sagadachi and Maiya, Motoyoshigori, Province of Rikuzen, Japan, and also at Yatsuse, near Kesennuma, Japan.

MICROCYATHUS Hinde, 1896, p. 447 (non *Microcyathus* Döderlein, 1913, p. 129, a genus of Recent hexacorals from the Gulf of Naples).

GENOHOLOTYPE (by monotypy):—*Hydnopora* (?) [sic] *cyclostoma* Phillips, 1836, p. 202, pl. ii, figs. 9, 10. Lower Carboniferous [Viséan, *Dibunophyllum* zone, D_3]: Northumberland, England.

REMARKS. See *Hydnopora* Phillips.

MICROCYCLUS Meek & Worthen, 1868, p. 420 (non *Microcyclus* Simroth, 1896, p. 303, a Recent gastropod).

GENOHOLOTYPE (by monotypy):—*M. discus* Meek & Worthen, 1868, p. 420, pl. xi, figs. 7a, b. Devonian, Hamilton Group: "Devil's Back-bone," Jackson County, Illinois, U.S.A.

MICROPLASMA Dybowski, 1873[1], p. 340, and 1874, p. 508.

GENOLECTOTYPE (see Wedekind, 1927, p. 64):—*M. gotlandicum* Dybowski, 1874, p. 508, pl. v, figs. 5a–d. [Silurian]: Karlsö, Isle of Gotland, Sweden.

REMARKS. See *Aphyllum* Soshkina.

MICTOCYSTIS Etheridge, 1908, p. 18.

GENOHOLOTYPE (by monotypy):—*M. endophylloides* Etheridge, 1908, p. 20, pls. iv, v. Upper Silurian, *Halysites* Limestone: Junction of Spring and Gap Creeks, Portion 98, Parish of Barton, County Ashburnham, Mount Canobalas District, New South Wales, Australia.

MICTOPHYLLUM Lang & Smith, 1939, p. 155.

GENOHOLOTYPE (by authors' original designation):—*M. nobile* Lang & Smith, 1939, p. 155, pl. iv, figs. 1a, b. Upper Devonian, Bed S: Gorge of the Red Knife River, tributary of the Mackenzie River, North-West Canada.

*MILLEPORA Linnaeus, 1758, p. 790, a Recent hydrocoralline.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. lviii):—*M. alcicornis* Linnaeus, 1758, p. 791. (Edwards & Haime quote *M. alcicornis* Lamarck, 1801, p. 373, but this at least includes *M. alcicornis* Linnaeus.)

REMARKS. *Millepora* or *Milleporites* was used by early writers for corals.

MILLEPORITES—form of *Millepora* used by early writers to denote fossil forms—see *Acroporites* Krüger.

MILLERIA Davis, 1887, explanation of pl. xlvi—pre-occupied by *Milleria* Hartmann, 1830, p. 45, a fossil crinoid.

GENOHOLOTYPE (by monotypy):—*M. laminata* Davis, 1887, explanation of pl. xlvi, fig. 9. Silurian, Upper Niagaran ferruginous clay: near Louisville, Kentucky, U.S.A.

REMARKS. Bassler, 1915, p. 428, considers the genus a synonym of *Dictyostroma* Nicholson, and *M. laminata* Davis synonymous with *D. undulatum* Nicholson, the genotype of *Dictyostroma*.

MOCHLOPHYLLUM Wedekind, 1923, pp. 31, 35.

GENOHOLOTYPE (by monotypy):—*Cyathophyllum maximum* [sic] Wedekind, 1923, p. 35=*Mesophyllum maximum* Schlüter, 1889, p. 328, pl. vii, fig. 1=*Actinocystis maximum* Schlüter, 1882, p. 207. Lower Middle Devonian, Gerolstein Mulde: Gerolstein and other localities, Eifel district, Germany.

REMARKS. Wedekind, 1923, p. 35, states no author of *Cyathophyllum* [sic] *maximum*, but in 1925, p. 39, he makes it clear that he is referring to Schlüter's species.

MONILIPORA as *Monilopora* Nicholson & Etheridge, 1879, p. 293.

GENOHOLOTYPE (by monotypy):—*M. crassa* (McCoy) Nicholson & Etheridge, 1879, p. 293, pl. vii, figs. 2a–f=*Jania crassa* McCoy, 1844, p. 197, pl. xxvii, fig. 4. Lower Carboniferous: Ireland.

REMARKS. McCoy gives no locality, but is describing Irish material. Hill & Smyth, 1938, p. 125, give "Carb. Slate, Lackagh, Drumquin" and "Carb. Slate, St. John's Point, Dunkineely," as the localities for the two syntype specimens of *J. crassa* in the National Museum, Dublin, and select that from the latter locality as lectotype. They consider (1938, p. 125) *Monilipora* a synonym of *Cladochonus* McCoy. Girty corrected the name in 1925, p. 19.

MONILOPORA Nicholson & Etheridge—see *Monilipora* Nicholson & Etheridge.

*MONTASTRAEA de Blainville, 1830, p. 339, and 1834, p. 374, a hexacoral.

GENOLECTOTYPE (see Lang & Smith, 1935[2], p. 554):—*Astraea guettardi* Defrance, 1826, p. 379="*Héliolithe* . . ." Guettard, 1770, p. 506, vol. iii, pl. xlviii, figs. 2–4. [Miocene: Bordeaux, etc., France.]

REMARKS. The genosyntypes of *Montastraea* de Blainville include three species of Palaeozoic corals—see Lang & Smith, 1935[2], p. 554.

*MONTICULARIA Lamarck, 1816, p. 248, a genus of hexacorals.

REMARKS. Steininger, 1831, p. 20, and 1834, p. 346, referred *Cyathophyllum hexagonum* Goldfuss to this genus. Lonsdale, 1839, p. 688, pl. xvi, figs. 5, 5a, included in *Monticularia* a stromatoporoid which he considered to be a coral.

MORAVOPHYLLUM Kettnerova, 1932, pp. 27, 79.

GENOHOLOTYPE (by author's original designation):—*M. ptenophylloides* Kettnerova, 1932, pp. 29, 80, text-figs. 8–12 on pp. 28–29. Highest zones of Middle Devonian, Givetian: Čelechovice, Moravia.

MORTIERA Hinde, 1883, p. 156—errore pro *Mortieria.*

MORTIERIA de Koninck, 1841, p. 12.
GENOHOLOTYPE (by monotypy):—*M. vertebralis* de Koninck, 1841, p. 12, pl. B, figs. 3a–c. Carboniferous, [Tournaisian]: Tournai, Belgium.
REMARKS. Possibly a sponge—see C. F. Römer, 1883, p. 321, and Hinde, 1883, p. 156. de Koninck, 1872, p. 164, also cites the form from Britain.

MUCOPHYLLUM Etheridge—see *Mycophyllum* Etheridge.

MULTISOLENIA Fritz, 1937, p. 231.
GENOHOLOTYPE (by author's original designation):—*M. tortuosa* Fritz, 1937, p. 231, text-figs. 1–6. Silurian, Lockport Formation: Mann Island (Burnt Island), Lake Timiskaming, Ontario, Canada.
REMARKS. See also Fritz, 1939.

MULTITHECOPORA Yoh, 1927, p. 291.
GENOHOLOTYPE (by author's original designation, p. 293):—*M. penchiensis* Yoh, 1927, p. 291, pl. i, figs. 1–3. Middle Carboniferous, Moscovian, Penchi Limestone: near Pen Chi coal-mine, Fengtien Province; and ?Middle Carboniferous, Tangshan Limestone: near Tangshan coal-mine, north-eastern Chihli, China.

MYCOPHYLLUM as *Mucophyllum* [sic] Etheridge, 1894, p. 12.
GENOHOLOTYPE (by monotypy):—*M. crateroides* Etheridge, 1894, p. 18, pls. iii, iv. Upper Silurian: Hatton's Corner, near Yass, Yass River; Old Limekiln Ridge, Humewood, near Yass; Quedong, Delegate River, County Wellesley, all in New South Wales, Australia.

NAGATOPHYLLUM Ozawa, 1925, p. 78.
GENOHOLOTYPE (by monotypy):—*N. satoi* Ozawa, 1925, p. 79, pl. xii, figs. 1–5. Lower Carboniferous: Tobinosu, Odamura, Japan.

NAOS Lang, 1926[1], p. 90, and 1926[2], p. 428.
GENOHOLOTYPE (by author's original designation):—*Ptychophyllum pagoda* Salter, 1873, p. 113. Silurian, Niagara Group: Melville Island and ?Disaster Bay, Arctic America.
REMARKS. *Cyathophyllum nymphale* Billings, 1862, p. 111, from the Middle Silurian, Anse à la Vieille, Bay of Chaleurs, is probably *Naos pagoda* (Salter).

NARDOPHYLLUM Wedekind, 1925, p. 36.
GENOHOLOTYPE (by author's original designation):—*N. exzentricum* [sic] Borchers MS. in Wedekind, 1925, pp. 36, 37, text-fig. 59 on p. 31 (pl. ix). Middle part of the Middle Devonian, beds overlying the upper Stenophyllenschichten: Plateau Berndorf, near Hillesheim, Eifel district, Germany.
REMARKS. See *Plagiophyllum* Wedekind & Vollbrecht.

NEMAPHYLLUM McCoy—see *Nematophyllum* McCoy.

NEMATOPHYLLUM as *Nemaphyllum* [sic] McCoy, 1849, p. 15.
GENOLECTOTYPE (see Edwards & Haime, 1850, p. lxxi):—*N. arachnoideum* McCoy, 1849, p. 16, and 1851, p. 97, pl. iiiA, figs. 6, 6a, b. Lower Carboniferous: Derbyshire, England.
REMARKS. McCoy himself emended the name, 1851, pp. 33, 97. Edwards & Haime, 1851, p. lxxi, mention *Stylaxis* McCoy as a synonym of *Nematophyllum*. We consider the genus synonymous with *Lithostrotion* Fleming.

NEMISTIUM Smith, 1928, p. 112.
GENOHOLOTYPE (by author's original designation):—*N. edmondsi* Smith, 1928, p. 112, pl. v, and text-fig. on p. 115. Lower Carboniferous, zone D2: Eskett quarry, Frizington, and at other localities, West Cumberland, and South Wales and Bristol areas, Great Britain.
REMARKS. *Nemistium* is derived from *Lithostrotion* Fleming.

NEOCYSTIPHYLLUM Wedekind, 1927, pp. 75, 77.
GENOHOLOTYPE (by author's original designation):—*N. mccoyi* Wedekind, 1927, p. 78, pl. xix, figs. 7, 8. Upper Silurian, zone of *Pentamerus tenuistriatus*: Fårö, Isle of Gotland, Sweden.

NEOKONINCKOPHYLLUM Fomichev, 1939, p. 58.
GENOSYNTYPES:—
(1) *N. tanaicum* Fomichev, 1939, p. 58, pl. viii, figs. 2a, b. Middle Carboniferous, horizon C_2^7: Donetz Basin, U.S.S.R.
(2) *N. vesiculosum* Fomichev, 1939, p. 58, pl. viii, figs. 3a, b, 4. Middle Carboniferous, horizon C_2^7: Donetz Basin, U.S.S.R.
GENOLECTOTYPE (here chosen):—*N. tanaicum* Fomichev.

NEOMPHYMA Soshkina, 1937, pp. 76, 98.
GENOHOLOTYPE (by author's original designation, pp. 76, 98):—*N. originata* Soshkina, 1937, pp. 77, 98, pl. xv, figs. 3, 4. Silurian, Upper Ludlow: eastern slope of the Urals, the Petropavlovsky region, along the road from the Petropavlovsky works to Pokrovskoye, U.S.S.R.

NEOSPONGOPHYLLUM Wedekind, 1922[1], p. 10.
GENOLECTOTYPE (see Wedekind, 1925, p. 52):—*N. variabile* Wedekind, 1922[1], p. 12, text-fig. 11 on p. 12. Middle Devonian, *quadrigeminus* zone: Hand, near Bergisch-Gladbach, Rhenish Prussia, Germany.

NEOSTRINGOPHYLLUM Wedekind, 1922[1], pp. 8, 16.
GENOHOLOTYPE (by author's original designation):—*N. ultimum* Wedekind, 1922[1], p. 16, text-figs. 17, 18 on p. 16. Middle Devonian, Upper Stringocephalenkalk: Düsseltal, Germany.

NEVADAPHYLLUM Stumm, 1937, p. 429.
GENOHOLOTYPE (by author's original designation):—*N. masoni* Stumm, 1937, p. 429, pl. liii, fig. 6, pl. liv, fig. 6. Lower Middle Devonian, basal 500 ft. of the Nevada Limestone: Lone Mountain, 18 miles north-west of Eureka, Nevada, U.S.A.

NICHOLSONIA Schlüter, 1885[3], p. 53 (non *Nicholsonia* Kiär nec *Nicholsonia* Počta, q.v.).

GENOSYNTYPES:—

(1) *N. perampla* Schlüter, 1885[3], p. 53=*Darwinia perampla* Schlüter, 1881[5], p. 143. Middle Devonian, *Stringocephalus* Limestone: Holthausen, West Limburg, Westphalia, Germany.

(2) *N. diffluens* (Edwards & Haime), Schlüter, 1885[3], p. 53=*Strombodes diffluens* Edwards & Haime, 1851, p. 431. Silurian, Salopian: Much Wenlock, Shropshire, England.

(3) *N. rhenana* Schlüter, 1885[3], p. 53=*Darwinia rhenana* Schlüter, 1880[1], p. 51. Upper Devonian: Eifel district, Germany.

GENOLECTOTYPE (here chosen):—*N. perampla* Schlüter.

REMARKS. We consider *N. perampla* to be congeneric with the genotype of *Arachniophyllum* Dana.

NICHOLSONIA Kiär, 1899, p. 37—pre-occupied by *Nicholsonia* Schlüter, 1885, for a Devonian rugose coral, and by several other genera for which the name has been used.

GENOHOLOTYPE (by monotypy):—*N. megastoma* (McCoy), Kiär, 1899, p. 37, pl. vi, figs. 8–9, pl. vii, figs. 1, 2=*Porites megastoma* McCoy, 1846, p. 62, pl. iv, fig. 19. Ordovician, Caradocian: Coniston, England, and Bala, Wales.

REMARKS. This is a synonym of *Heliolites* Dana.

NICHOLSONIA Počta, 1902, p. 184—pre-occupied by *Nicholsonia* Schlüter, 1885[3], p. 53, for a Devonian rugose coral and by several other genera, and re-named *Alleynia* by Počta, 1902, p. iv and Addenda et Corrigenda.

GENOLECTOTYPE (see below):—*N. bohemica* Barrande in Počta, 1902, p. 186, pl. lxviii, figs. 38–56, pl. cxii, figs. 10–12, and text-figs. 5, 6 on p. 186=*Petraia bohemica* Barrande, 1865, pp. 51, 303 (name only). Middle Devonian, Daleje Shales, $g\beta$: Hlubočepy and "près du moulin de Wawrowitz"; Zlíchov Limestone, $g\alpha 3$: Hlubočepy, Černá rokle, Bohemia. Počta, 1902, p. 185, remarks "Surtout représente le type du genre," but it depends upon the exact significance of "surtout" whether we consider that Počta designated the type or not. In any case Grabau cited that species as lectotype, 1928, p. 84.

REMARKS. See *Alleynia* Počta and *Syringaxon* Lindström.

NODULIPORA Lindström, 1873[1], p. 14.

GENOHOLOTYPE (by monotypy):—*N. acuminata* Lindström, 1873[1], p. 14. Silurian: Dalhem, Isle of Gotland, Sweden.

REMARKS. See Nicholson, 1879, p. 186.

NYCTOPORA Nicholson, 1879, p. 182.

GENOHOLOTYPE (by monotypy):—*N. billingsi* Nicholson, 1879, p. 184, pl. ix, figs. 3, 3a–c = *Columnaria goldfussi* Nicholson, 1875[4], p. 9. Ordovician, Trenton Limestone: Peterborough, Ontario, Canada (non *C. goldfussi* Billings, 1858[1], p. 166).

ODONTOPHYLLUM Simpson, 1900, p. 210.

GENOHOLOTYPE (by author's original designation):—*Aulacophyllum convergens* Hall, 1882, p. 22, 1883[1], p. 281, pl. xvii, figs. 1, 2, and 1884, p. 426. Middle Devonian, Corniferous [Onondaga] Limestone: Falls of the Ohio, U.S.A.

OLIGOPHYLLUM Počta, 1902, p. 192.

GENOHOLOTYPE (by author's original designation):—*O. quinqueseptatum* Počta, 1902, p. 194, pl. lxviii, fig. 9, pl. cviii, figs. 17, 18. Middle Devonian, Dvorce Limestones, *g*α1: Dvorce, Bohemia.

REMARKS. Počta's remark "Les caractères génériques que nous venons d'exposer sont très bien indiqués dans l'espèce *Olig. quinqueseptatum*, qui peut être considérée comme typique," virtually makes this the type.

*OMPHALOPHYLLIA Laube, 1865, p. 251, a Mesozoic hexacoral.

GENOHOLOTYPE (by author's original designation):—*Anthophyllum gracile* Münster, 1834, p. 8. Triassic, Kalkmergel-Lager: St. Cassian=*A. granulosum* Münster, 1834, p. 8=*Montlivaltia gracilis* Münster, 1841, p. 34, pl. ii, fig. 5.

REMARKS. A Permian rugose species is referred to this hexacoral genus as *O. primula* Koker, by Koker, 1924, p 33, pl. ii, fig. 7, from Nefotassi, Timor.

OMPHYMA Rafinesque & Clifford, 1820, p. 235, as sub-genus of *Turbinolia*.

GENOHOLOTYPE (by monotypy):—*O. verrucosa* Rafinesque & Clifford, 1820, p. 235. [?Lower Carboniferous, Mississippian]: Button Lick Knob, south-east of Garrard County, Kentucky, U.S.A.

REMARKS. Rafinesque, in Rafinesque & Clifford, recording the locality from which the coral came, remarks, "M. Clifford en a trouvé un exemplaire unique à Button-Lick, à la surface du sol, parmi les nombreux débris d'encrinites, qui donnent leur nom à ce lieu." Dr. Grace A. Stewart in a letter to one of us [S.S.], 31.v.1934, gives the following information. Button Lick Knob is a hill in the south-eastern part of Garrard County, Kentucky, for the most part consisting of Mississippian strata, but with Devonian in the vicinity, and with Silurian faulted against the Carboniferous.

The Knob takes its name from a layer or layers of rock in the Mississippian filled with encrinite stems near the top of the hill, and possibly 150 feet above the Devonian. There are a few corals in the Mississippian limestone, and numerous corals in the Devonian. Miss Stewart feels certain, however, that Clifford did not get his coral from Button Lick Knob, but that if he did it was from the Mississippian. She believes that he got his localities mixed, and suggests that the type may have come from the Silurian of the Falls of the Ohio. In any case the horizon of *Omphyma verrucosa* is uncertain.

The genus is generally, but incorrectly, interpreted upon the Silurian coral usually quoted as "*Omphyma turbinata* (Linnaeus)." Edwards & Haime wrongly cited this species as genotype (1850, p. lxviii). They say, "Typ. sp. *Omphyma turbinata*; *Madrepora turbinata*, Lin. Amoen. Acad., vol. i, tab. iv, fig. 2," i.e., *Madrepora turbinata* Linnaeus, 1758, p. 793 partim = *Madrepora simplex*, *turbinata* . . . *concava* var. β. Linnaeus, 1745, p. 15, fig. ii, and 1749, p. 87, pl. iv, fig. ii. These authors are also in all probability

equally wrong when (1851, p. 403) they identify Clifford's coral with one from the Silurian of Drummond Island, Lake Huron, U.S.A., described as a species of *Caryophyllia* by Stokes in Bigsby, 1824, p. 203, pl. xxix, fig. 1, left-hand figure only (not the right), and figs. 2a, b.

The type of *Omphyma* has not been traced and the locality and horizon are uncertain. Therefore, since the description of the species is insufficient for certain identification, the name *Omphyma* cannot be used.

ONYCHOPHYLLUM Smith, 1930[2], p. 301.

GENOHOLOTYPE (by author's original designation):—*O. pringlei* Smith, 1930[2], p. 301, pl. xxviii, figs. 22, 23, text-fig. 3 on p. 302. Silurian, Valentian, Purple Shales: small tributary of Hughley Brook, 180 yards above its junction with the main stream, near Hughley, Shropshire, England.

ORIONASTRAEA Smith, 1916[2], p. 2, and 1917, p. 294.

GENOLECTOTYPE (see Smith, 1917, p. 294):—*O. phillipsi* (McCoy) Smith, 1917, pp. 294, 298, pl. xxiii, figs. 1–5, pl. xxiv, figs. 1–2 = *Sarcinula phillipsi* McCoy, 1849, p. 125. Lower Carboniferous, *Dibunophyllum* zone: Corwen, Merionethshire, Wales.

REMARKS. The lectotype of *O. phillipsi* is Sedgwick Museum, Cambridge, specimen A.2188 (formerly no. 213a)—see Smith, 1917, p. 299, pl. xxiii, fig. 1.

ORTHOPHYLLUM Počta, 1902, p. 196.

GENOSYNTYPES:—

(1) *O. bifidum* Barrande MS. in Počta, 1902, p. 197, pl. cxii, fig. 13, pl. cxiii, figs. 17, 20, pl. cxiv, figs. 6, 7. Lower Devonian, Koněprusy Limestones, *f*: Koněprusy, Bohemia.

(2) *O. conicum* Počta, 1902, p. 197, pl. cxii, fig. 16. Silurian, Ludlow, *eβ*: near Lužec, Bohemia.

(3) *O. minusculum* Počta, 1902, p. 198, pl. cxii, fig. 7. Silurian, Ludlow, *eβ*: Lužec, Dlouhá Hora, and Tachlowitz, Bohemia.

(4) *O. pingue* Počta, 1902, p. 198, pl. lxviii, figs. 60, 61. Middle Devonian, Bránik Limestones, *gα*: Lochkov and Dvorce, Bohemia.

(5) *O. praecox* Počta, 1902, p. 199, pl. cxii, figs. 5, 6, pl. cxiii, figs. 11, 12. Middle Devonian, Daleje Shales, *gβ*. Kuchelbad, Lochkov, Dlouhá Hora, Vohrada, and Lužec, Bohemia.

(6) *O. simplex* Počta, 1902, p. 199, pl. cxv, fig. 9. Middle Devonian, Bránik Limestones, *gα*: Lochkov, Bohemia.

(7) *O. viduum* Počta, 1902, p. 200, pl. cxii, fig. 14. Lower Devonian, Koněprusy Limestones, *f*: Koněprusy, Bohemia.

GENOLECTOTYPE (here chosen):—*O. bifidum* Barrande MS. in Počta.

REMARKS. Dr. F. Prantl, who has investigated Barrande's original material, has recommended to us that the specimen figured by Počta, 1902, pl. cxiii, fig. 20, should be selected as lectotype of *O. bifidum*, and we accordingly designate it as such here. He also allows us to state (*a*) that that specimen is 33 mm. in length, and 25 mm. in maximum diameter, that its calice is filled with matrix, and that the double ribs are well preserved; and (*b*) that the specimens referred to the species by Počta from the Bránik Limestones, *gα*, of Hlubočepy,

Bohemia, do not appear to be conspecific with those figured from the Koněprusy Limestones, *f.* See also Grabau, 1928, p. 14, for a discussion of the genus.

PACHYCANALICULA Wentzel, 1895, p. 503.

GENOHOLOTYPE (by author's original designation):—*Heliolites barrandei* Hoernes MS. in Penecke, 1887, p. 271, pl. xx, figs. 1–3. Lower Devonian, *Bronteus* Limestone, and Middle Devonian, reef limestone: Pasterk, near Vellach, Austria.

PACHYPHYLLUM Edwards & Haime, 1850, p. lxviii.

GENOHOLOTYPE (by authors' original designation):—*P. bouchardi* Edwards & Haime, 1850, p. lxviii, and 1851, p. 397, pl. vii, figs. 7, 7a, 7b. Upper Devonian [Frasnian], Ferques Limestone: Ferques, near Boulogne, France.

REMARKS. Lang & Smith, 1935[2], p. 554, consider the genus a synonym of *Phillipsastraea* d'Orbigny.

PACHYPORA Lindström, 1873[1], p. 14.

GENOHOLOTYPE (by monotypy):—*P. lamellicornis* Lindström, 1873[1], p. 14. Silurian, Visby märgelsten: Visby, Isle of Gotland, Sweden.

REMARKS. See also Lindström, 1896[2], pp. 23–32, pl. v, figs. 53–64b, text-fig. on p. 25.

Pachypora lamellicornis is, we consider, congeneric with *Thamnopora madreporacea* Steininger, the genotype of *Thamnopora* Steininger. Therefore the genera *Pachypora* and *Thamnopora* are synonymous. In this opinion we are at variance with Lindström, and in agreement with Nicholson, Römer, Frech and others. Lindström (1896[2], p. 25) strongly opposed the view taken by these workers, and would admit no other species into *Pachypora* except, perhaps, *Alveolites fischeri* Billings (pp. 27, 31). He insisted that his genus was misunderstood, and that in this case, as in many others, species had been foisted on to it which had no affinities whatever with the genotype. He considered the stratiform character of the walls to be diagnostic of *P. lamellicornis*, and not to be present in any of the other thick-walled Favositids. Lindström was a particularly careful worker and accurate observer, and consequently an author with whom one hesitates to disagree. He is certainly correct when he emphasises the peculiarities of *Pachypora lamellicornis*, but we hold that he is mistaken in maintaining that the stratiform thickening in this species separates it off from the other species of *Thamnopora*. There are differences, however, between these and *Pachypora lamellicornis*. *P. lamellicornis* differs from them in growth habit and in having a very varied calice, occasional septal spines, and an occasional operculum in the mouth of the calice. The differences are those between a somewhat remarkable species and the less distinctive forms.

*PACHYTHECA Hooker, 1861, p. 162.

GENOHOLOTYPE (by monotypy):—*P. sphaerica* Hooker, 1861, p. 162. Upper Silurian, Ludlow Bone Bed: Woolhope district, Herefordshire, England.

REMARKS. This genus was originally described as, and is usually accepted to be, an alga (see also Strickland, 1853, p. 9, Hooker, 1853, p. 12, Hooker, 1889, p. 135, Barber, 1889, p. 141, and Kidston & Lang, 1924, p. 604). Should, however, the genus prove to be an animal, then *Pachytheca* Hooker will preoccupy *Pachytheca* Schlüter.

PACHYTHECA Schlüter, 1885[2], p. 144 (non *Pachytheca* Hooker, q.v., nec *Pachytheca* Canu, 1913, p. 142, a Cretaceous polyzoan).

GENOHOLOTYPE (by monotypy):—*P. stellimicans* Schlüter, 1885[2], p. 144, described and figured by Schlüter, 1889, p. 390, pl. xi, fig. 1, pl. xii, figs. 1–6. Middle Devonian, Schmidtheimer Mulde and Gerolsteiner Mulde: Eifel district, Germany.

REMARKS. The name *Pachytheca* was used by Hooker for a plant, but, by Article I of the International Rules of Zoological Nomenclature, this does not preoccupy the name for an animal.

PAECKELMANNOPORA Weissermel, 1939, p. 94.

GENOHOLOTYPE (by monotypy):—*P. macrophthalma* Weissermel, 1939, p. 94, pl. xi, figs. 3–5. Lower Devonian, Gedinnian: Kartal, Bithynia, on the Sea of Marmora, south-east of Constantinople, Turkey.

REMARKS. The genus is a heliolitid with solid coenenchyme.

PALAEACIS Haime in Edwards, 1857, p. 9 in Atlas (as *Paloeacis* [sic]), expl. to pl. E1, figs. 2a–d, and 1860, p. 171.

GENOHOLOTYPE (by monotypy):—*P. cuneiformis* Haime in Edwards, 1857, p. 9 in Atlas, expl. to pl. E1, figs. 2a–d, and 1860, p. 171. Lower Carboniferous, St. Louis Group: Spurgen Hill, east of Harristown, east of Salem, Indiana, U.S.A. =*Sphenopoterium cuneatum* Meek & Worthen, 1860, p. 448, and 1866, p. 262, pl. xix, figs. 1a–d. Lower Carboniferous, Mississippian, and St. Louis Group: Spurgen Hill, east of Harristown, east of Salem, Indiana, U.S.A.

REMARKS. See *Conopoterium* Winchell and *Sphenopoterium* Meek & Worthen.

PALAEARAEA Lindström, 1882[1], p. 11.

GENOHOLOTYPE (by monotypy):—*P. lopatini* Lindström, 1882[1], p. 11, fig. 8 on plate. Silurian: various localities in Middle Tunguska, Russia.

PALAEASTRAEA as *Palastraea* [sic] McCoy, 1851, p. 111.

GENOHOLOTYPE (by monotypy):—*Astraea carbonaria* McCoy, 1849, p. 125, and 1851, p. 111, pl. iiiA, figs. 7, 7a, pl. iiiB, figs. 1, 1a. Carboniferous Limestone, Viséan: near Bakewell, Derbyshire, and Corwen, North Wales.

REMARKS. *P. carbonaria* is conspecific with *Cyathophyllum regium* Phillips, 1836, p. 201, pl. ii, figs. 25, 26. Lower Carboniferous: Lofthouse in Nidderdale, Derbyshire; Pembrokeshire; the Wrekin? [sic]; Derbyshire, Great Britain. Thus this species is a *Palaeosmilia* Edwards & Haime, and *Palaeastraea* is, therefore, a synonym of *Palaeosmilia*.

PALAEOALVEOLITES as *Paleoalveolites* [sic] Okulitch, 1935, p. 64.

GENOHOLOTYPE (by author's original designation):—*Tetradium carterense* Bassler, 1932, p. 196, pl. vii, figs. 2, 3. Ordovician, lower part of the Carters Limestone: two miles south-east of Priest, Tennessee, U.S.A.

PALAEOCYATHUS Foerste, 1888, p. 129.

GENOSYNTYPES:—

(1) *Cyathophyllum australe* Foerste, 1888, p. 128, pl. xiii, figs. 12–14. Upper Silurian: Bowning Hill, Bowning Parish, New South Wales, Australia.

(2) *Turbinolopsis bina* Lonsdale, Phillips, 1841, p. 4, pl. i, figs. 2a–c. Devonian: Combe, near Ashburton, Devonshire, England.

(3) *Zaphrentis caudata* Ludwig, 1865, p. 170, pl. xlii, figs. 2a–f. Lower Devonian, Spiriferen Sandstein: Ziegenberg in the Taunus Mountains, Germany.

GENOLECTOTYPE (here chosen):—*Cyathophyllum australe* Foerste.

PALAEOCYCLUS Edwards & Haime, 1849[1], p. 71.

GENOHOLOTYPE (by monotypy):—*Madrepora porpita* Linnaeus, 1767[2], p. 1272= *Madrepora simplex*, *orbicularis*, *plana*; *stella convexa* Linnaeus, 1745, p. 19, figs. va, b, and 1749, p. 91, pl. iv, figs. va, b. Found on the shore [derived from the Silurian (Visby Marls=Llandovery)]: Isle of Gotland, Sweden.

REMARKS. The genus is an absolute synonym of *Porpites* Schlotheim.

PALAEOFAVOSITES Twenhofel, 1914, p. 24.

GENOHOLOTYPE (by author's original designation):—*Favosites asper* d'Orbigny, 1850, p. 49 = *Favosites alveolaris* Lonsdale (non Goldfuss), 1839, p. 681, pl. xvi bis, figs. 1, 1a, b, 2, 2a. Silurian: Wenlock, Shropshire, England, and Island of Dagö, Esthonia.

REMARKS. *F. asper* is a species of *Favosites* with long, upturned, septal spines, and in our opinion there is no necessity to separate it generically from other species of Lamarck's genus.

PALAEOPHYLLUM Billings, 1858[1], p. 168.

GENOHOLOTYPE (by monotypy):—*P. rugosum* Billings, 1858[1], p. 168. Ordovician, Trenton formation: Lake St. John, Little Discharge, Canada.

REMARKS. A phaceloid species of the Streptelasmidae.

PALAEOPORA McCoy, 1849, p. 129.

GENOSYNTYPES:—"All the so-called *Porites* of the palaeozoic rocks," i.e., species of *Heliolites* Dana and allied genera.

GENOLECTOTYPE (here chosen):—*Astraea porosa* Goldfuss, 1826, p. 64, pl. xxi, figs. 7a–g. Devonian: Eifel district, Germany.

REMARKS. McCoy diagnoses the genus but mentions no species by name. He says, "I propose this genus for all the so-called *Porites* of the palaeozoic rocks. First described by Goldfuss as *Astraeae*, they were removed by Ehrenberg . . . and Lonsdale . . . to the recent genus *Porites*, in which they were followed—probably without examination—by many writers." In 1851, p. 14, he states that *Palaeopora* = *Geoporites* d'Orbigny, *Plasmopora* Edwards & Haime, and *Propora* Edwards & Haime.

In selecting *Astraea porosa* Goldfuss as genotype, we make *Palaeopora* an absolute synonym of *Heliolites* Dana.

PALAEOPORITES Kiär, 1899, p. 18.

GENOHOLOTYPE (by monotypy):—*P. estonicus* Kiär, 1899, p. 18, pl. iii, figs. 1–4. Ordovician, Caradocian: Röa, Karjakörts and Borkholm, Esthonia.

PALAEOSMILIA Edwards & Haime, 1848[2], p. 467—the genus is diagnosed but no species are referred to it.

GENOHOLOTYPE (by monotypy, the first species subsequently referred to the genus):—*P. murchisoni* Edwards & Haime, 1848[3], p. 261, and 1852, p. 178, pl. xxxiii, figs. 3, 3a, b. Lower Carboniferous: Frome [?sic], Somerset, England.

REMARKS. It is very doubtful if the genotype is accurately localised, for there are no D beds (the horizon to which the species belongs) nearer to Frome than four miles. Edwards & Haime, 1851, p. 369, and 1852, p. 178, merged this very distinctive genus in *Cyathophyllum* Goldfuss. See *Clisiophyllites* Löweneck, *Kueichouphyllum* Yü, *Palaeastraea* McCoy, and *Strephodes* McCoy.

PALASTRAEA McCoy—see *Palaeastraea* McCoy.

PALEOALVEOLITES Okulitch—see *Palaeoalveolites* Okulitch.

PAPILIOPHYLLUM Stumm, 1937, p. 430.

GENOHOLOTYPE (by author's original designation):—*P. elegantulum* Stumm, 1937, p. 430, pl. liii, fig. 7, pl. liv, fig. 7. Lower Middle Devonian, basal 500 ft. of the Nevada Limestone: Lone Mountain, 18 miles north-west of Eureka, Nevada, U.S.A.

PARACANINIA Chi, 1937, p. 93.

GENOHOLOTYPE (by author's original designation, p. 94):—*P. sinensis* Chi, 1937, p. 95, pl. i, figs. 5–7, pl. iii, figs. 2a–c, pl. iv, figs. 1a–f, 2a–e. Permian, Wumaling Series: Yungsin district, Kiangsi, China.

PARAFAVOSITES Orlov, 1930, p. 122, and 1931, p. 502.

GENOSYNTYPES:—

(1) *P. ferganensis* Orlov, 1930, p. 122, pl. i, figs. 1, 2, pl. ii, figs. 1, 3, and 1931, p. 502, text-figs. 1–3. Upper Silurian: Cliffs of River Isphara, south of Matsch, Ferghana district, U.S.S.R.

(2) *P. weberi* Orlov, 1930, p. 124, pl. i, figs. 3, 4, pl. ii, fig. 2, and 1931, p. 505, text-fig. 4. Same horizon and locality.

GENOLECTOTYPE (here chosen):—*P. ferganensis* Orlov.

REMARKS. Orlov, 1930, p. 125, and 1931, p. 505, also described *Parafavosites* sp. from the Upper Silurian of Asmonsai, Ferghana district.

PARALITHOPHYLLUM as *Paralythophyllum* [sic] Wedekind, 1925, p. 35, as sub-genus of *Lithophyllum*.

GENOHOLOTYPE (by author's original designation):—*P. tenue* Wedekind, 1925, p. 35. Middle Middle Devonian, Spongophyllenschichten: Kerpen, Eifel district, Germany.

PARALLEYNIA Soshkina, 1936[2], p. 30.

GENOHOLOTYPE (by author's original designation, p. 39):—*P. permiana* Soshkina, 1936[2], pp. 32, 39, text-figs. 3a–e, 4, 5a, b, 6 on p. 33, and 7, 8 on p. 34. Lower Permian, Artinskian: River Sogur-Sai, Aktubinsk Region, Southern Urals, Russia.

REMARKS. *Paralleynia*, as the author infers, is a small, simple coral which recalls *Alleynia* Počta (see under *Syringaxon* Lindström). It shows an even closer resemblance to *Allotropiophyllum* Grabau, with which it may very well be congeneric. Whether the younger aulate corals of the *Syringaxon* type are allied to, or are merely homoeomorphs of, the Siluro-Devonian group remains to be proved.

PARALYTHOPHYLLUM Wedekind—see *Paralithophyllum* Wedekind.

PATEROPHYLLUM Počta, 1902, p. 209.

GENOLECTOTYPE (see Grabau, 1928, p. 18):—*P. explanans* Počta, 1902, p. 211, pl. cxiv, figs. 8, 9. Lower Devonian, Koněprusy Limestones, *f*: Koněprusy; Middle Devonian, Bránik Limestones, *gα*: Lochkov and Bránik, Bohemia.

PATINULA Eichwald, 1829, p. 186.

GENOHOLOTYPE (by monotypy):—*P. lithuana* Eichwald, 1829, p. 186, pl. iii, fig. 3. "Fossilis lapidem araneo-calcareum campactum prope Kowno, Lithuaniae urbem."

REMARKS. The zoological position of this genus is doubtful.

PATROPHONTES Lang & Smith, 1927 (October), p. 456.

GENOHOLOTYPE (by authors' original designation):—*Madrepora truncata* Linnaeus, 1761, p. 536=*Madrepora truncata* Linnaeus partim, 1758, p. 795=*Madrepora composita* . . . *cylindraceo-concavis* Linnaeus, 1745, p. 22, fig. x, n. 3, and 1749, p. 93, pl. iv, figs. x, n. 3. [Silurian]: Isle of Gotland, Sweden.

REMARKS. See Lang & Smith, 1927, p. 456. The genus is a synonym of *Codonophyllum* Wedekind, 1927.

PEETZIA Tolmachev, 1924, pp. 309, xi, and 1931, p. 603.

GENOHOLOTYPE (by monotypy):—*P. minor* Tolmachev, 1924, pp. 312, xi, pl. xix, figs. 5, 6, and 1931, p. 604. Lower Carboniferous: Tikta, neighbourhood of Kusnetzk, Russia.

PELLICULITES Barrande MS. in Bigsby, 1868, p. 195—a nomen nudum.

REMARKS. The only species referred to the genus is *P. simplex* Barrande, from the Lower Devonian, Koněprusy Limestones, *f*, of Koněprusy, Bohemia, but it is also a nomen nudum.

PENTAPHYLLUM de Koninck, 1871, p. 321 (nomen nudum), and 1872, p. 58 —pre-occupied by *Pentaphyllus* [sic] Megerle in Dejean, 1921, p. 68, for a coleopteron.

GENOSYNTYPES:—

(1) *P. armatum* de Koninck, 1872, p. 59, pl. iv, figs. 8, 8a, b. Lower Carboniferous, Tournaisian: Tournai, Belgium.

(2) *P. caryophyllatum* de Koninck, 1872, p. 60, pl. iv, figs. 9, 9a. Same horizon and locality.

GENOLECTOTYPE (see Hinde, 1890, p. 195, footnote, and Carruthers, 1919, p. 439):—*P. armatum* de Koninck.

REMARKS. Hudson, 1936, p. 98, considers that the systematic position of *P. armatum* cannot be decided upon the holotype alone, and that its allocation must await further material. He regards *P. caryophyllatum* as congeneric with *Cryptophyllum hibernicum* Carruthers.

PERICRETUM König—see *Perteretum* König.

PERIPAEDIUM Ehrenberg, 1834, p. 308.

GENOSYNTYPES:—*Cyathophyllum turbinatum* Goldfuss, 1826, p. 56, pl. xvi, figs. 8a–k. Middle Devonian: Eifel district, Germany; and other unspecified species.

GENOLECTOTYPE (here chosen):—*C. turbinatum* Goldfuss.

PERMIA Stuckenberg, 1895, pp. 26, 186.

GENOHOLOTYPE (by monotypy):—*P. iwanowi* Stuckenberg, 1895, pp. 27, 187, pl. iii, fig. 6. Carboniferous, Unteren Kohlenkalk: Ural Mountains, Russia.

PERTERETUM (or *Pericretum*—printing indistinct) König, 1825, pl. xvii, figs. 205, 206.

GENOSYNTYPES:—

(1) *P. rectum* König, 1825, pl. xvii, fig. 205.
(2) *P. obliquum* König, 1825, pl. xvii, fig. 206.

REMARKS. This appears to be *Favosites* Lamarck. In any case the name does not stand, as pl. xvii of König was never published, but privately issued after König's death.

PETALAXIS Edwards & Haime, 1852, p. 204.

GENOLECTOTYPE:—*Nematophyllum arachnoideum* McCoy, 1849, p. 16, text-fig. on p. 15, and 1851, p. 97, pl. iiiA, figs. 6, 6a, b. Lower Carboniferous: Derbyshire, England.

REMARKS. In stating that *Petalaxis* is another name for *Nematophyllum* McCoy, Edwards & Haime irrevocably make the genotype of *Nematophyllum* (q.v.) that of *Petalaxis* also.

PETRAIA Münster, 1839, p. 42.

GENOLECTOTYPE (see Miller, 1889, p. 199, and Schindewolf, 1931, p. 634):—*P. decussata* Münster partim, 1839, p. 43, pl. iii, figs. 1a, b. Silurian, Orthoceratites Limestone [=Middle Ludlow]: Elbersreuth, Frankenwald, Bavaria=*P. radiata* Münster partim, 1839, p. 42, pl. iii, figs. 4a, b. Same horizon and locality.

REMARKS. Miller chose *P. decussata*, the second of Münster's genosyntypes of *Petraia*, as genolectotype of the genus. Schindewolf considers that this is conspecific with *P. radiata*, the first genosyntype, and he restricts the species to the Silurian syntypes, excluding pl. iii, fig. 1c.

Münster described the five genosyntypes of *Petraia* as gastropods, but expressed doubt as to their true nature, suggesting they may be Zoophytes allied to *Cyathophyllum* or *Anthophyllum*. The corals are from the *Clymenia* Limestone of Schübelhammer (Devonian) and the Orthoceratites Limestone

of Elbersreuth, which Münster considered one and the same bed. Schindewolf, 1924[1], p. 108, 1924[2], p. 194, has shown that the limestones are of different ages, and that *Petraia* was confined to the Silurian bed.

The name *Petraia* has, from an early date, been consistently misused and wrongly applied, particularly to casts of *Streptelasma* Hall and other corals.

For details of the genotype, see Schindewolf, 1931.

PETROZIUM Smith, 1930[2], p. 307.

GENOHOLOTYPE (by author's original designation):—*P. dewari* Smith, 1930[2], p. 307, pl. xxvi, figs. 20–28. Silurian, Valentian, *Pentamerus* Beds (*Calostylis* Limestone): Morrells Wood Brook, 300 yards north-north-east of Morrellswood Farm, 1 mile north-north-west of Buildwas, and other localities in Shropshire, England.

PETZIA Fomichev, 1931, pp. 41, 70—errore pro *Peetzia* Tolmachev.

PEXIPHYLLUM Walther, 1928, pp. 120, 128.

GENOSYNTYPES:—

(1) *P. primum* Walther, 1928, p. 130.
(2) *P. rectum* Walther, 1928, p. 130, text-figs. 20, 21 on p. 130.
(3) *P. altum* Walther, 1928, p. 132, text-figs. 22, 23 on p. 132.
(4) *P. arcuatum* Walther, 1928, p. 133, text-fig. 24 on p. 133.
(5) *P. ultimum* Walther, 1928, p. 133, text-figs. 25, 26 on p. 134.

All Lower Upper Devonian, and apparently from the neighbourhood of Grund in the Harz Mountains, Germany, except *P. primum* which is from Elberfeld-Beek, Hauptbruch, Knappersbusch, Prussia, Germany.

GENOLECTOTYPE (here chosen):—*P. rectum* Walther.

PHACELLOPHYLLUM Gürich—see *Phacelophyllum* Gürich.

PHACELOPHYLLUM as *Phacellophyllum* [sic] Gürich, 1909, p. 102.

GENOHOLOTYPE (by monotypy):—*P. caespitosum* Goldfuss, Gürich, 1909, p. 102, pl. xxxi, figs. 5a, b=*Lithodendron caespitosum* Goldfuss, 1826, p. 44, pl. xiii, fig. 4. Middle Devonian: Bensberg, Eifel district, Germany.

REMARKS. Gürich simply refers to "*Phacellophyllum* [sic] *caespitosum* Goldf.," without explaining whether he meant *Lithodendron caespitosum* or *Cyathophyllum caespitosum* of that author; but his figures are copied from Schlüter, 1881[4], pl. ix, figs. 6, 7, and thus definitely fix the former as the genotype. For the validity of the genus, see Lang & Smith, 1935[2], p. 547, who consider it a genomorph of *Disphyllum* de Fromentel. See *Fascicularia* Dybowski.

PHAULACTIS Ryder, 1926, pp. 385, 392.

GENOHOLOTYPE (by author's original designation):—*P. cyathophylloides* Ryder, 1926, p. 392, pl. xi, figs. 1–6, pl. xii, fig. 1. Silurian, Salopian, Slite Group: Vastergarn, Island of Gotland, Sweden.

REMARKS. Lang & Smith, 1927, p. 471, would merge *Mesactis* Ryder with *Phaulactis*. See Butler, 1937, pp. 93–95, for a discussion of the relationship between *Phaulactis* and *Pycnactis* Ryder. See *Lycocystiphyllum* Wedekind.

PHILLIPSASTRAEA as *Phillipsastrea* [sic] d'Orbigny, 1849[2], p. 12.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. lxxi):—*Astraea hennahi* Lonsdale partim, 1840, p. 697, pl. lviii, figs. 3, 3a, b=*Astraea hennahi* Lonsdale, Phillips, 1841, p. 12, pl. vi, figs. 16αa, 16βb, 16βc, but not pl. vii, fig. 15D. Upper Devonian: Barton, north-west of St. Mary Church, Torquay, Devonshire, England.

REMARKS. See Lang & Smith, 1935[2], p. 556. The lectotype of *P. hennahi* is the specimen figured by Lonsdale, 1840, pl. lviii, figs. 3, 3b (see Smith, 1917, p. 284). Edwards & Haime have caused much confusion and error by ignoring their own selection of the genolectotype of *Phillipsastraea*, and by quoting, 1851, p. 173, as "Exemple" of the genus, *Phillipsastraea radiata=Erismatolithus Madreporites radiatus* Martin, 1809, pl. xviii, and at the same time, p. 171, founding a new genus *Smithia* with *Astraea hennahi* Lonsdale as "Exemple." See also *Medusaephyllum* F. A. Römer, *Pachyphyllum* Edwards & Haime, *Pseudoacervularia* Schlüter, and *Streptastraea* Sandberger & Sandberger.

PHOLADOPHYLLUM as *Pholidophyllum* [sic] Lindström, 1871[1], p. 925, and 1871[2], p. 125.

GENOHOLOTYPE (by monotypy):—*Cyathophyllum* ? [sic] *loveni* Edwards & Haime, 1851, p. 364, and 1855, p. 280, pl. lxvi, figs. 2, 2a. Silurian: Isle of Gotland, Sweden, and Wren's Nest, Dudley, Worcestershire, England.

REMARKS. *P. loveni* is congeneric with *Tryplasma aequabilis* Lonsdale, the genotype of *Tryplasma* Lonsdale, and thus *Pholadophyllum* is a synonym of *Tryplasma*. Lindström, 1883[1], p. 64, wrongly makes these species synonymous with *Tubiporites tubulatus* Schlotheim, 1813, p. 37.

PHOLIDOPHYLLUM Lindström—see *Pholadophyllum* Lindström.

PHRAGMOPHYLLUM Scheffen, 1933, p. 36.

GENOHOLOTYPE (by author's original designation):—*P. corrivatum* Scheffen, 1933, p. 36, pl. vi, fig. 5. Silurian, Llandovery, Zone 7c of Kiär, 1908: Skovengen, Tyrifjord, Norway.

REMARKS. The genus and the genotype are insufficiently described.

PHRYGANOPHYLLUM de Koninck, 1871, p. 321 (nomen nudum), and 1872, p. 62.

GENOHOLOTYPE (by monotypy):—*P. duncani* de Koninck, 1872, p. 62, pl. iv, figs. 11, 11a, b. Lower Carboniferous, "Calcaire Carbonifère," [Tournaisian]: Tournai, Belgium.

PILOPHYLLUM Wedekind, 1927, pp. 34, 39.

GENOHOLOTYPE (by author's original designation):—*P. keyserlingi* Wedekind, 1927, pp. 34, 39, pl. viii, figs. 3, 4. Silurian, Pilophyllumstufe: Linde klint, Isle of Gotland, Sweden.

PINACOPORA Nicholson & Etheridge, 1878, p. 52.

GENOHOLOTYPE (by monotypy):—*P. grayi* Nicholson & Etheridge, 1878, p. 54, pl. iii, figs. 3, 3a–j. Silurian, Valentian: Mulloch Hill, near Girvan, Ayrshire, Scotland.

PINNATOPHYLLUM Grabau, 1917[1], p. 199 (nomen nudum), and 1922, p. 13.

GENOHOLOTYPE (by author's original designation, 1922, p. 66):—*Cyathophyllum scyphus* [sic].

REMARKS. Grabau mentions no author of the species, but presumably he meant *Cyathophyllum scyphus* Rominger, 1876 [?1877], p. 103, pl. xxxv, lower tier, 2 right-hand figures. Devonian, Hamilton Group: Long Lake, Alpena, Michigan, U.S.A.—see Bassett, 1935, p. 445. The latter is thus in error in designating *P. dundeense* Grabau MS. in Bassett, 1935, p. 445, as genotype.

In the explanation of pl. xxxv, Rominger erroneously refers to the figures of *C. scyphus* as the two left-hand figures, and also to the species as *C. zyphus* [sic]. The genotype seems to be congeneric, if not conspecific, with *Caninia sulcata* d'Orbigny, 1850, p. 105, genotype of *Aulacophyllum* Edwards & Haime.

Grabau, 1922, p. 66, refers to *Pinnatophyllum* as though it were mentioned in his "Devonic Corals of Michigan." The latter is only MS., not having been published up to 1931 (see Chi, 1931, p. 21), nor apparently since then.

PLACOPHYLLUM Simpson, 1900, p. 216.

GENOHOLOTYPE (by author's original designation):—*P. tabulatum* Simpson, 1900, p. 216, text-fig. 41 on p. 216. Middle Devonian, Onondaga Limestone: Walpole, Ontario, Canada.

REMARKS. The figured section of *P. tabulatum* is that of a phaceloid coral with flat tabulae and no dissepiments. This condition may be found in corals of many different lineages.

The locality, which is not mentioned by Simpson, is that given on the label of the original section.

PLAGIOPHYLLUM Wedekind & Vollbrecht, 1931, explanation of pl. xvii, figs. 4, 5, pl. xxvii, figs. 6, 7, and 1932, pp. 113, 115.

GENOSYNTYPES:—

(1) *P. oblongum* Wedekind & Vollbrecht, 1931, pl. xvii, figs. 4, 5, pl. xxvii, figs. 6, 7, and 1932, pp. 113, 114. Middle part of the Middle Devonian, zone of *Pseudocosmophyllum geigeri*: Loogher Mühle, Hillesheim, Eifel district, Germany.

(2) *P. prodigiosum* Wedekind & Vollbrecht, 1932, p. 115, pl. xiii. Middle part of the Middle Devonian, zone of *Nardophyllum* (*Plagiophyllum*) *excentricum*: Berndorf, Hillesheim, Eifel district, Germany.

(3) *Nardophyllum excentricum* Borchers MS. in Wedekind, 1925, pp. 36, 37, text-fig. 59 on p. 31 (pl. ix). Middle Devonian, beds overlying the upper Stenophyllenschichten: Plateau Berndorf, near Hillesheim, Eifel district, Germany.

GENOLECTOTYPE (here chosen):—*Nardophyllum excentricum* Borchers MS. in Wedekind.

REMARKS. The genus is an absolute synonym of *Nardophyllum* Wedekind.

PLAGIOPORA Gürich, 1896, p. 143—pre-occupied by *Plagiopora* MacGillivray, 1895, p. 79, for a Tertiary polyzoan.

GENOSYNTYPES:—

(1) *P. dziwkiensis* Gürich, 1896, p. 143, pl. v, figs. 3a, b=*Calamopora filiformis* C. F. Römer, 1870, p. 33. Middle Devonian: Chenciny and Dziwki, Poland.

(2) *P. denticulata* Edwards & Haime, Gürich, 1896, p. 144=*Alveolites denticulatus* Edwards & Haime, 1851, p. 258, pl. xvi, figs. 4, 4a. Devonian: Bensberg, Westphalia, Germany.

GENOLECTOTYPE (here chosen):—*Alveolites denticulatus* Edwards & Haime.

REMARKS. We re-name this genus *Scoliopora*, q.v.

PLANALVEOLITES Lang & Smith, 1939, p. 154.

GENOHOLOTYPE (by authors' original designation):—*Alveolites fougti* Edwards & Haime, 1851, p. 257, pl. xvii, figs. 5, 5a. Upper Silurian, Salopian: Isle of Gotland, Sweden.

PLASMOPHYLLUM Dybowski, 1873[1], p. 340—name and diagnosis only, no species mentioned.

GENOHOLOTYPE (by monotypy, the first species subsequently referred to the genus, by Schlüter, 1885[1], p. 10):—*Cyathophyllum goldfussi* Edwards & Haime, 1851, p. 363, pl. ii, figs. 3, 3a. Devonian: Eifel district, Germany.

REMARKS. Lang & Smith, 1927, p. 458, erroneously consider Dybowski's genus invalid, and credit it to Schlüter. Ignoring Schlüter's work of 1885[1], and following Schlüter, 1889, p. 338, they wrongly quote *Cystiphyllum brevilamellatum* McCoy as genotype of *Plasmophyllum*. Schlüter, 1889, p. 338, gives *Cystiphyllum brevilamellatum* McCoy, Wenlock Limestone, Wenlock, England, as genotype of *Plasmophyllum* Dybowski, on the strength of a remark by Dybowski, which we cannot find in any previous publication. See also *Stereophyllum* Schlüter.

PLASMOPORA Edwards & Haime, 1849[2], p. 262.

GENOHOLOTYPE (by monotypy):—*Porites petalliformis* Lonsdale, 1839, p. 687, pl. xvi, figs. 4, 4a. Silurian, Wenlock Shale: Delves Green, Walsall, Staffordshire, England.

PLASMOPORELLA Kiär, 1897, pp. 10, 71, 74 (nomen nudum), and 1899, p. 34.

GENOHOLOTYPE (by monotypy):—*P. convexotabulata* forma *typica* Kiär, 1899, p. 35, pl. v, figs. 9–11. Silurian, Etage 5 of Kiär, Gasteropodkalk: Stavnaestangen and other localities, Norway.

PLATYAXUM Davis, 1887, explanation of pls. lx, lxi, lxiii.

GENOSYNTYPES:—

(1) *P. turgidum* Davis, 1887, explanation of pl. lx, figs. 1, 2. "Lower Devonian": Falls of Ohio, Kentucky, U.S.A.

(2) *P. fischeri* Davis, 1887, explanation of pl. lx, fig. 3. "Lower Devonian": Falls of Ohio, Kentucky, U.S.A.

(3) *P. canadense* Davis, 1887, explanation of pl. lx, figs. 4, 5. "Lower Devonian": Falls of Ohio; "Upper Devonian": near Louisville, Kentucky, U.S.A.

(4) *P. undosum* Davis, 1887, explanation of pl. lx, fig. 6. "Lower Devonian": Falls of Ohio, Kentucky, U.S.A.

(5) *P. corioideum* Davis, 1887, explanation of pl. lxi, fig. 4. "Lower Devonian": Falls of Ohio, Kentucky, U.S.A.

(6) *P. foliatum* Davis, 1877, explanation of pl. lxiii, fig. 6. "Lower Devonian": Falls of Ohio, Kentucky, U.S.A.

GENOLECTOTYPE (here chosen):—*P. turgidum* Davis.

REMARKS. Davis probably did not mean *P. turgidum* to be a new species, as he does not designate it as such, but he gives no indication of its authorship. Bassler, 1915, p. 984, states that the genotype is *Pachypora frondosa* Nicholson, but that species is not one of the genosyntypes, so that his selection is invalid.

PLATYPHYLLUM Lindström, 1883[1], p. 40, and 1883[2], p. 68—pre-occupied by *Platyphyllum* Audinet-Serville, 1831, p. 145, for a Recent orthopteron.

GENOHOLOTYPE (by monotypy):—*P. sinense* Lindström, 1883[1], p. 41, and 1883[2], p. 68, pl. v, figs. 8–12. Silurian: Tshau-tiën, north-eastern Province of Sz-tshwan [Szechuan], China.

REMARKS. We re-name this genus *Teratophyllum*, q.v.

PLEROPHYLLUM Hinde, 1890, p. 195.

GENOLECTOTYPE (see Grabau, 1928, p. 46):—*P. australe* Hinde, 1890, p. 196, pl. viiia, figs. 1a–1f. "Carboniferous" [Permian]: Gascoyne River, and Irwin River, Little Champion Bay, Victoria District, Western Australia.

PLEURODICTYUM Goldfuss, 1829, p. 113.

GENOHOLOTYPE (by monotypy):—*P. problematicum* Goldfuss, 1829, p. 113, pl. xxxviii, figs. 18a–g. Lower Devonian: Eifel district and Nassau, Germany.

REMARKS. We consider that *Michelinia* de Koninck is a synonym of *Pleurodictyum*.

POLYCOELIA King, 1849, p. 388 (non *Polycoelia* de Fromentel, 1860, p. 32, a Mesozoic sponge, nec *Polycoelia* Fuhrmann, 1907, p. 293, a Recent annelid).

GENOHOLOTYPE (by author's original designation):—*Turbinolia donatiana* King, 1848, p. 6. Permian, [Middle] Shelly Magnesian Limestone: Humbleton Hill, Durham, England = *Calophyllum donatianum* King, 1850, p. 23, pl. iii, fig. 1.

REMARKS. The genotype is generally considered to be synonymous with *Cyathophyllum profundum* Germar in Geinitz, 1842, p. 579, pl. x, figs. 14, 14a, from the Permian, Zechstein, of Ilmenau, Germany. The genus is an exact synonym of *Calophyllum* Dana.

POLYDILASMA Hall—see *Polydiselasma* Hall.

POLYDISELASMA as *Polydilasma* [sic] Hall, 1851, p. 399, and 1852[1], p. 112.

GENOHOLOTYPE (by monotypy):—*P. turbinatum* Hall, 1851, p. 399, and 1852[1], p. 112, pl. xxxii, figs. 2a–h. Silurian, Niagaran: Lockport, New York, U.S.A.

REMARKS. Miller, 1889, p. 200, and Bassler, 1915, pp. 1020, 1333, consider the genus a synonym of *Zaphrentis* Rafinesque & Clifford, but we disagree. The genus needs investigation.

POLYOROPHE Lindström, 1882[2], pp. 16, 20, and 1883[3], p. 12.

GENOHOLOTYPE (by monotypy):—*P. glabra* Lindström, 1882[2], pp. 16, 20, and 1883[3], p. 12. Silurian: Isle of Gotland, Sweden.

REMARKS. For a full description with good figures of *P. glabra*, see Lindström, 1896[2], p. 43, pl. viii, figs. 99–107, text-fig. on p. 44.

POLYPHYLLUM de Fromentel, 1861, p. 308—pre-occupied by *Polyphyllum* Blanchard, 1850, p. 165, for a coleopteron.

GENOLECTOTYPE (here chosen):—*Cyathophyllum hexagonum* Goldfuss partim, 1826, p. 61, pl. xix, figs. 5e, f, pl. xx, figs. 1a, b (but excluding pl. xix, figs. 5a–d), from the Devonian of Bensberg and the Eifel district, Germany—one of the ten genosyntypes.

REMARKS. The genus is thus an exact synonym of *Hexagonaria* Gürich. See *Pinnatophyllum* Simpson.

POLYSTOMA as *Polystomus* [sic] König, 1825, pl. xiii, fig. 153—pre-occupied by *Polystoma* Zeder in Goeze, 1800, p. 199, for an annelid.

REMARKS. König figured only *Polystomus axillaris* [sic] König, pl. xiii, fig. 153—name and figure only, but presumably=*Catenipora axillaris* Lamarck, 1816, p. 207, a Silurian syringoporoid coral. In any case *Polystoma* König cannot stand since König's plate xiii was never published but issued privately after his death. We refer to the genus, however, as copies of plate xiii are to be found in several libraries, so that it is important to emphasise the inadmissibility of the genus.

POLYTHECALIS Yabe & Hayasaka, 1916, p. 63.

GENOHOLOTYPE (by authors' original designation):—*P. confluens* Yabe & Hayasaka, 1916, p. 65, and 1920, pl. xi, figs. 1a, b. "Carboniferous?" [sic] [Permian, Chihsia Limestone, *Tetrapora elegantula* Zone]: Kung-shan, Hui-tso-hsien, Province of Yun-nan, China.

REMARKS. *Polythecalis* embraces late derivatives of *Lonsdaleia* McCoy which have become plocoid. Several genera have been unnecessarily introduced subsequently for similar forms. See *Lonsdaleiastraea* Gerth.

*PORITES Cuvier, 1798, p. 678, a hexacoral, as sub-genus of *Madrepora* Linnaeus.

REMARKS. Although the genus is generally referred to Link, 1807, p. 163, it should nevertheless be credited to Cuvier, who erected it for three species of Recent hexacorals. Several Palaeozoic tabulate corals, e.g., species of *Heliolites* Dana, have been referred to the genus by early writers. See also J. E. Guettard, 1770, under "Literature."

PORPITES Schlotheim, 1820, p. 349.

GENOSYNTYPES:—

(1) *P. haemisphericus* Schlotheim, 1820, p. 349. "Übergangskalkstein": Isle of Gotland, Sweden, and Eifel district, Germany [non *Cyclolites hemisphericus* Lamarck, 1801, p. 369, and 1816, p. 233. [Cretaceous]: Dauphiné, France; but partim *Madrepora porpita* Linnaeus, 1767[2], p. 1272=*Madrepora simplex*, *orbicularis*, *plana*; *stella convexa* Linnaeus, 1745, p. 19, figs. va, b, and 1749, p. 91, pl. iv, figs. va, b. [Silurian, Valentian]: Visby, Isle of Gotland, Sweden].

(2) P. *lenticulatus* Schlotheim, 1820, p. 350. [Silurian], "Übergangskalkstein": Isle of Gotland, Sweden=*Cyclolites numismalis* Lamarck, 1801, p. 369 (but only partim Lamarck, 1816, p. 233, which includes Recent and fossil forms —see *Cyclolites* Lamarck)=*Madrepora porpita* Linnaeus, 1767[2], p. 1272=*Madrepora simplex, orbicularis, plana*; *stella convexa* Linnaeus, 1745, p. 19, figs. va, b, and 1749, p. 91, pl. iv, figs. va, b.

(3) *P. echinatus* Schlotheim, 1820, p. 350. [Cretaceous]: Petersberg, near Maastricht, Holland.

(4) *P. globulatus* Schlotheim, 1820, p. 350. Cretaceous: near Aachen, Rhenish Prussia, Germany.

GENOLECTOTYPE (here chosen):—*P. haemisphericus* Schlotheim.

REMARKS. Schlotheim included more than one species in *P. haemisphericus*, for his material came from the Isle of Gotland, Sweden, and from the Eifel district of Germany, i.e., from more than one horizon. We accordingly designate the Swedish species as the lectotype of his *P. haemisphericus*, which is therefore synonymous with *Madrepora porpita* Linnaeus, the genotype of *Palaeocyclus* Edwards & Haime. *Palaeocyclus* is thus an absolute synonym of *Porpites* Schlotheim. See also J. E. Guettard, 1770, under "Literature."

PRISCITURBEA Kunth, 1870, p. 43, explanation of pl. i, figs. 2a, b—errore pro *Prisciturben* Kunth.

PRISCITURBEN Kunth, 1870, pp. 25, 28.

GENOHOLOTYPE (by monotypy):—*P. densitextum* Kunth, 1870, pp. 25, 28, pl. i, figs. 2a, b. Silurian: Öland Island, Sweden.

REMARKS. Lindström, 1883[3], p. 12, states that the genus was "Founded on a rugose coral of undetermined genus, enclosed in a mass of *Coenostroma*." We here restrict the name to the coral. As this cannot be recognized, the name must lapse. See also Lindström, 1889.

PRISMATOPHYLLUM Simpson, 1900, p. 218.

GENOHOLOTYPE (by author's original designation):—*P. rugosum* (Edwards & Haime) Simpson partim, 1900, p. 218 (but non text-fig. 44 on p. 219, nec text-fig. 45 on p. 220)=*Cyathophyllum rugosum* (Hall) Edwards & Haime, 1851, p. 387, pl. xii, figs. 1, 1a, b, partim, non *Astraea rugosa* Hall, 1843, p. 159, text-fig. 62, 2 on p. 159, and no. 32, fig. 2 on p. 28 of tables (with which Edwards & Haime identify their coral), but *Prismatophyllum prisma* Lang & Smith, 1935[2], p. 558, who re-named Edwards & Haime's species. Middle Devonian, Onondaga Limestone: Falls of the Ohio, Charleston Landing, 30 miles below Madison, Ohio, U.S.A.

REMARKS. The coral figured by Simpson as *Prismatophyllum rugosum* Edwards & Haime is not conspecific with the type of *Cyathophyllum rugosum* Edwards & Haime, but this is of secondary importance since Simpson definitely states *Cyathophyllum rugosum* Edwards & Haime, 1851, p. 387, pl. xii, figs. 1, 1a, b, to be the genotype of *Prismatophyllum*.

P. prisma is, however, congeneric with *C. hexagonum* Goldfuss, 1826, p. 61, pl. xix, figs. 5, e, f, pl. xx, figs. 1a, b, the genolectotype of *Hexagonaria* Gürich, of which *Prismatophyllum* Simpson is thus a synonym.

PRISMATOSTYLUS as *Prismostylus* [sic] Okulitch, 1935, p. 62.
GENOHOLOTYPE (by author's original designation):—*Chaetetes columnaris* Hall, 1847, p. 68, pl. xxiii, figs. 4, 4a. Ordovician, lower part of the Trenton Limestone: Sugar River, Lewis County, New York, U.S.A.

PRISMOSTYLUS Okulitch—see *Prismatostylus* Okulitch.

PRISTIPHYLLUM Grabau, 1917[1], p. 199, a nomen nudum.

PROCTERIA Davis, 1887, explanation of pl. xli.
GENOSYNTYPES:—
(1) *P. michelinoidea* Davis, 1887, explanation of pl. xli, figs. 3–14. Middle Devonian: Falls of the Ohio, Kentucky, U.S.A.
(2) *P. papillosa* Davis, 1887, explanation of pl. xli, figs. 15–21. Middle Devonian: Falls of the Ohio, Kentucky, U.S.A.
GENOLECTOTYPE (here chosen):—*P. michelinoidea* Davis.
REMARKS. The genus appears to be synonymous with *Pleurodictyum* Goldfuss.

PROHELIOLITES Kiär, 1897, p. 10.
GENOHOLOTYPE (by monotypy):—*Heliolites dubius* Schmidt, 1858, p. 226. Ordovician, zone 1a–2b of Schmidt, 1858: Lyckholm, Esthonia.
REMARKS. For further descriptions, with figures, of the genotype see Lindström, 1899, p. 70, pl. ix, figs. 10–17, and Kiär, 1899, p. 21, pl. iii, figs. 5–6, pl. vi, fig. 5. The species is common in Stage 5, Stavnaestangen and other localities in Norway.

PROPORA Edwards & Haime, 1849[2], p. 262.
GENOHOLOTYPE (by monotypy):—*Porites tubulatus* Lonsdale, 1839, p. 687, pl. xvi, figs. 3, 3a, b (non figs. 3c–f—see Edwards & Haime, 1850, p. lix). Silurian, Wenlock Limestone: various localities in Shropshire, Herefordshire, Gloucestershire, and Worcestershire, England.
REMARKS. See *Koreanopora* Ozaki and *Lyellia* Edwards & Haime.

PROSMILIA Koker, 1924, p. 28.
GENOSYNTYPES:—
(1) *P. cyathophylloides* (Gerth) Koker, 1924, p. 29, pl. v, figs. 5–11, pl. vii, fig. 1, pl. ix, fig. 1, pl. x, figs. 1–7, 9, 10. Permian: Wesleo, Timor = *Plerophyllum cyathophylloides* Gerth, 1921, p. 90, pl. cxlvi, figs. 13, 14. Permian: Basleo, Timor.
(2) *P. compressa* Koker, 1924, p. 30, pl. ii, fig. 6, pl. v, figs. 4, 4a, pl. x, fig. 8. Permian: Wesleo, Timor.
GENOLECTOTYPE (here chosen):—*Plerophyllum cyathophylloides* Gerth.

PROTAEROPOMA Ting, 1937, pp. 412, 414—see *Protaraeopoma* Ting.

PROTARAEA Edwards & Haime, 1851, pp. 146, 208.
GENOLECTOTYPE (see Miller, 1889, p. 201):—*P. vetusta* (Hall) Edwards & Haime, 1851, p. 208, pl. xiv, figs. 6, 6a = *Porites*? [sic] *vetustus* Hall, 1847, p. 71,

pl. xxv, figs. 5a, b. Ordovician, lower part of the Trenton Limestone, near its junction with the Black River Limestone: Watertown, Jefferson County, New York, U.S.A.

REMARKS. According to Edwards & Haime, 1851, p. 208, the figures given by Hall, 1847, pl. xxv, figs. 5a, b, are incomplete and inexact. Lindström, 1883[3], pp. 9, 12, considers that *Diplastraea* Eichwald, 1856, p. 111, is a synonym of *Protaraea* Edwards & Haime, while Kiär, 1899, p. 9, regards *Coccoseris* Eichwald, 1855[2], p. 2, as a synonym of *Protaraea*.

PROTARAEOPOMA as *Protaeropoma* [sic] Ting, 1937, pp. 412, 414.

GENOHOLOTYPE (by author's original designation):—*P. wedekindi* Ting, 1937, p. 414, text-figs. 3a, b on p. 412. Silurian: Visby, Isle of Gotland, Sweden.

PROTOCYATHOPHYLLUM Thomson, 1883, pp. 333, 336, proposed to replace *Protocyathus* Thomson.

GENOHOLOTYPE (genoholotype of *Protocyathus* Thomson):—*Protocyathus quadraphyllum* [sic] Thomson, 1880, p. 251, pl. iii, figs. 10, 10a. Lower Carboniferous, Viséan: Cunningham Baidland Quarry, Dalry, Ayrshire, Scotland.

REMARKS. Although Thomson changed the name *Protocyathus* to *Protocyathophyllum* as the latter "more fully expresses the generic characters of the group," and although such a reason in itself is invalid, nevertheless, in view of the pre-occupation of the name by *Protocyathus* Ford, 1878, the change is a valid one, and *Protocyathophyllum* is not still-born, as stated by Hill, 1938[2], p. 56. The selection of *P. verrilli* as genolectotype by Gregory, 1917, pp. 223, 225, is invalidated by Thomson's own designation of *P. quadriphyllum* as genolectotype of *Protocyathus*.

PROTOCYATHUS Thomson, 1880, p. 244—pre-occupied by *Protocyathus* Ford, 1878, p. 124, for an archaeocyathine, and re-named *Protocyathophyllum* by Thomson, 1883, pp. 333, 336.

GENOHOLOTYPE (by author's original designation, p. 251):—*P. quadraphyllum* [sic] Thomson, 1880, p. 251, pl. iii, figs. 10, 10a (erroneously referred to as *P. quadralamellum* [sic] on p. 261, explanation of pl. iii, figs. 10, 10a). Lower Carboniferous, Viséan: Cunningham Baidland Quarry, Dalry, Ayrshire, Scotland.

REMARKS. See *Protocyathophyllum* Thomson.

PROTODIBUNOPHYLLUM Lissitzin, 1925, p. 68.

GENOSYNTYPES:—

(1) *P. simplex* Lissitzin, 1925, p. 68, pl. ii, fig. 1. Lower Carboniferous: Novotcherkassk, north of Lake Teniz, Asiatic Russia.

(2) *P. joanni* Lissitzin, 1925, p. 68, pl. ii, fig. 3. Same horizon and locality.

GENOLECTOTYPE (here chosen):—*P. simplex* Lissitzin.

PROTOLONSDALEIA as *Protolonsdalia* [sic] Lissitzin, 1925, p. 68.

GENOSYNTYPES:—

(1) *P. carcinnophyllosa* Lissitzin, 1925, p. 68, pl. i, fig. 3. Lower Carboniferous: Novotcherkassk, north of Lake Teniz, Asiatic Russia.

(2) *P. mariupoliensis* Lissitzin, 1925, p. 68, pl. i, fig. 9. Same horizon and locality.

(3) *P. ramulosa* Lissitzin, 1925, p. 68, pl. i, fig. 10. Same horizon and locality.

GENOLECTOTYPE (here chosen):—*P. carcinnophyllosa* Lissitzin.

REMARKS. Lissitzin, 1925, p. 68, pl. i, figs. 5, 16, 17, also describes and figures *Protolonsdalia* [sic] sp. The genus is synonymous with *Lonsdaleia* McCoy.

PROTOLONSDALEIASTRAEA Gorsky, 1932, pp. 44, 80.

GENOHOLOTYPE (by monotypy):—*P. atbassarica* Gorsky, 1932, pp. 44, 80, pl. v, figs. 3–5, text-fig. 5 on p. 45. Lower Carboniferous: Kirghiz Steppe, U.S.S.R.

REMARKS. The genotype is a species of *Polythecalis* Yabe & Hayasaka.

PROTOLONSDALIA Lissitzin—see *Protolonsdaleia* Lissitzin.

PROTOMICHELINIA Yabe & Hayasaka, 1915, p. 59.

GENOSYNTYPES:—

(1) *Michelinia* (*Protomichelinia*) *microstoma* Yabe & Hayasaka, 1915, p. 61, and 1920, pl. ix, figs. 8a, b. Permian: Mei-tse-keu, 20 li S. of Wu-chang, Province of Hu-pei, China.

(2) *Michelinia favositoides* Girty, 1907, p. 38, and 1913, p. 312, pl. xxix, figs. 1, 2. Carboniferous, Pennsylvanian, Wu-shan limestone: near Ta-ninghién, East Ssï-chúan (station 3), China—non *Michelinia favosoidea* Billings, 1859[1], p. 114.

(3) *Michelinia insignis* Rominger, 1876 [?1877], p. 75, pl. xxvii, figs. 1–3. Devonian, Hamilton Group: near Alpena and Darien, New York; Helderberg Group: Falls of the Ohio, and other places in Kentucky, U.S.A.

(4) *Michelinia cylindrica* (Milne Edwards), Rominger, 1876 [? 1877], p. 74, pl. xxvi, figs. 3, 4. Devonian: Falls of the Ohio and other localities in Ohio and Indiana, and in the drift of Michigan, U.S.A.

GENOLECTOTYPE (here chosen):—*Protomichelinia microstoma* Yabe & Hayasaka.

REMARKS. Yabe & Hayasaka propose *microstoma* to replace *favositoides*, because they consider that *P. microstoma* and *P. favositoides* are probably identical, and that the name *favositoides* is pre-occupied by *favosoidea* of Billings. The genus is a synonym of *Michelinia* de Koninck, i.e., of *Pleurodictyum* Goldfuss.

PROTOPORA Greene, 1904, p. 169.

GENOHOLOTYPE (by author's original designation):—*Romingeria cystoides* Grabau MS. in Greene, 1901, p. 52, pl. xx, figs. 19–23. Lower Carboniferous, St. Louis group, Warsaw division: Lanesville, Harrison County, and Georgetown, Floyd County, Indiana, U.S.A.

PROTROCHISCOLITHUS Kiär, 1904, p. 49.

GENOHOLOTYPE (by author's original designation):—*Heliolites* ? [sic] *parasiticus* Nicholson & Etheridge, 1880, p. 259, pl. xvi, figs. 5, 5a, b. Silurian, Valentian: Mulloch Hill, near Girvan, Ayrshire, Scotland.

PSELIOPHYLLUM as *Pselophyllum* [sic] Počta, 1902, p. 82.

GENOHOLOTYPE (by author's original designation, p. 83):—*P. bohemicum* Počta, 1902, p. 85, pls. xxix, xxx, xxxi, pl. xxxii, figs. 1–15, pl. xxxiii, pl. xxxiv, figs. 20–25, pl. ciii, figs. 4, 5, pl. cix, figs. 1, 2. Lower Devonian, Koněprusy Limestones, *f*: Koněprusy, Bohemia.

REMARKS. Počta, in his synonymy of *P. bohemicum*, states, "*Zaphrentis bohemica*, Barr.—Bigsby.—*Thesaurus silur.* p. 200," but that species does not appear in Bigsby, 1868.

PSELOPHYLLUM Počta—see *Pseliophyllum* Počta.

PSEUDAMPLEXUS Weissermel, 1897, p. 878—genus caelebs (no species were referred to the genus by Weissermel).

REMARKS. See also Weissermel, 1939, p. 23.

PSEUDOACERVULARIA Schlüter, 1881[4], p. 84, and 1881[6], p. 201.

GENOSYNTYPES:—Schlüter erected the genus for those species in which some epitheca between the corallites is present, and which are described by Edwards & Haime as *Acervularia*.

GENOLECTOTYPE (here chosen):—*Acervularia coronata* Edwards & Haime, 1851, p. 416, and 1853, p. 237, pl. liii, figs. 4, 4a, b. Devonian, Frasnian?: Barton, near St. Mary Church, Torquay, Devonshire, England.

REMARKS. Schlüter mentions no species by name under the genus, and therefore all the corals which fulfil the conditions he stipulated and which had been described by Edwards & Haime are genosyntypes. The genolectotype is a species of *Phillipsastraea* d'Orbigny, and, therefore, *Pseudoacervularia* is a synonym of *Phillipsastraea*.

PSEUDOCANINIA Stuckenberg, 1888, pp. 12, 47.

GENOLECTOTYPE (see Lewis, 1931, p. 227):—*P. conica* (Fischer von Waldheim) Stuckenberg, 1888, pp. 13, 48, pl. i, figs. 23–45, pl. ii, figs. 22–28. Carboniferous, "Ober Kohlenkalk": Miatchkova, on the River Moskva, south of Moscow, and other localities in the provinces of Moscow and Vladimirsk, Russia=*Bothrophyllum conicum* (Fischer von Waldheim) Trautschold, 1879, p. 30, pl. v, figs. 1a–f. [Carboniferous], "Ober Bergkalk": Miatchkova, on the River Moskva, south of Moscow, Russia.?=*Turbinolia conica* Fischer von Waldheim, 1830, explanation of pl. xxx, fig. 6, and 1837, p. 153, pl. xxx, fig. 6; plus *T. arietina* Fischer von Waldheim, 1830, explanation of pl. xxx, fig. 4, and 1837, p. 153, pl. xxx, fig. 4; plus *T. ibicina* Fischer von Waldheim, 1830, explanation of pl. xxx, fig. 5, and 1837, p. 153, pl. xxx, fig. 5. [Carboniferous]: Miatchkova, on the River Moskva, south of Moscow, Russia.

REMARKS. Lewis chose as genolectotype *P. conica* (Fischer von Waldheim) Stuckenberg, which is not necessarily *Turbinolia conica* Fischer von Waldheim. *P. conica* Stuckenberg is *Bothrophyllum conicum* Trautschold, the genotype of *Bothrophyllum*, and thus *Pseudocaninia* Stuckenberg is an exact synonym of *Bothrophyllum* Trautschold, q.v.

PSEUDOCHONOPHYLLUM Soshkina, 1937, pp. 59, 96.

GENOHOLOTYPE (by author's original designation, pp. 59, 96):—*Chonophyllum pseudohelianthoides* Sherzer, 1892, p. 275, pl. viii, fig. 6. Silurian [=Devonian, Koněprusy Limestones, *f*]: Koněprusy, Bohemia.

REMARKS. See Počta, 1902, p. 123, pls. xlvii, xlviii, pl. cix, figs. 3–6, pl. cxiii, figs. 21, 22.

PSEUDOCOSMOPHYLLUM Wedekind & Vollbrecht, 1931, explanation of pls. xxxiii–xxxv, and 1932, pp. 112, 113.

GENOSYNTYPES:—

(1) *P. geigeri* Wedekind & Vollbrecht, 1931, pl. xxxiii, figs. 1–4, pl. xxxiv, fig. 2, and 1932, p. 113. Middle part of the Middle Devonian, zone of *P. geigeri*: Niederehe, near Hillesheim, Eifel district, Germany.

(2) *P. corniculum* Wedekind & Vollbrecht, 1931, pl. xxxiv, figs. 1–5, pl. xxxv, figs. 1–9, and 1932, p. 113. Same horizon and locality.

GENOLECTOTYPE (here chosen):—*P. geigeri* Wedekind & Vollbrecht.

PSEUDOFAVOSITES Gerth, 1921, p. 101.

GENOHOLOTYPE (by monotypy):—*P. stylifer* Gerth, 1921, p. 102, pl. cxlviii, figs. 1–6, pl. cxlix, fig. 5, and pl. cl, figs. 2, 3. Permian: Basleo, Bitauni, and between Niki-Niki and Noil Fatoe, Timor.

REMARKS. Gerth also describes a variety of the genotype, namely, *P. stylifer* var. *septosa* Gerth, 1921, p. 104, pl. cxlviii, figs. 7, 8. Permian: Basleo, Timor.

PSEUDOMPHYMA Wedekind, 1927, pp. 34, 37.

GENOHOLOTYPE (by author's original designation):—*P. profunda* Wedekind, 1927, pp. 34, 38, pl. vi, figs. 8–10. Silurian, Horizon IV of Hedström: Storungs, Isle of Gotland, Sweden.

PSEUDOPETRAIA Schindewolf, 1924[1], p. 108, a nomen nudum.

REMARKS. See also Schindewolf, 1931, p. 631, who considers that the corals for which the name was originally intended may be included in *Alleynia* Počta, i.e., *Syringaxon* Lindström.

PSEUDOPTENOPHYLLUM Wedekind, 1925, pp. 60, 78, text-fig. 95 on p. 61 (pl. xvi).

GENOHOLOTYPE (by monotypy, p. 78):—*Cyathophyllum helianthoides* Goldfuss mut. *philocrina* Frech, 1886, p. 170, pl. xvi, figs. 1–4. Middle Devonian, Crinoid beds: between Gerolstein and Pelm; and Brachiopod marls: Mühlberg near Gerolstein, Eifel district, Germany.

REMARKS. Although Wedekind, 1925, p. 78, states that the genus will be described later, he nevertheless clearly refers the above mentioned species to it, so that that species is unquestionably the genotype by monotypy.

PSEUDOURALINIA Yü, 1931, p. 21, as sub-genus of *Uralinia* Stuckenberg.

GENOHOLOTYPE (by author's original designation):—*P. tangpakouensis*, Yü, 1931, p. 22, text-figs. 2a–c on p. 22. Lower Carboniferous: 1.5 li south of Kolaoho Bridge, and 2 li west of Maochai, Tu-shan-hsien, Kueichow Province, China.

PSEUDOZAPHRENTOIDES Stuckenberg, 1904, p. 90.

GENOHOLOTYPE (by monotypy):—*P. jerofewi* Stuckenberg, 1904, p. 91, pl. viii, figs. 5a, b. Lower Carboniferous: Region of Podmokloje on the River Oka, Government of Tula, Central Russia.

PSEUDOZONOPHYLLUM Wedekind, 1924, p. 25.

GENOSYNTYPES:—

(1) *P. halli* Wedekind, 1924, pp. 25, 28, text-figs. 28–31 on p. 25. Lower Middle Devonian: Kirbachtal, in the railway-cutting near Ahütte, Eifel district, Germany.

(2) *P. logani* Wedekind, 1924, pp. 27, 29, text-fig. 28 on p. 27. Same horizon and locality.

(3) *P. clarkei* Wedekind, 1924, p. 28. Horizon and locality not mentioned, presumably the same.

GENOLECTOTYPE (here chosen):—*P. halli* Wedekind.

PTENOPHYLLUM Wedekind, 1923, pp. 26, 27, 29, 30, 33, 34.

GENOSYNTYPES:—

(1) *P. praematurum* Wedekind, 1923, pp. 29, 33, and text-fig. 2 on p. 27. Lower Middle Devonian, Digonophyllum-Stufe: Eifel district, Germany.

(2) *P. intortum* Wedekind, 1923, p. 34, and text-fig. 6 on p. 30. Lower Middle Devonian, Dohmophyllum-Stufe, Auburg Schichten: Auburg, Eifel district, Germany.

(3) *P. crassum* Wedekind, 1923, p. 29. Lower Middle Devonian, Digonophyllum-Stufe: Eifel district, Germany.

(4) *P. filosa* Wedekind, 1923, pp. 29, 33. Lower Middle Devonian, Digonophyllum-Stufe: Eifel district, Germany.

(5) *P. princeps* Wedekind, 1923, pp. 29, 33. Lower Middle Devonian, Digonophyllum-Stufe: Eifel district, Germany.

(6) *P. primum* Wedekind, 1923, p. 33. Lower Middle Devonian, Digonophyllum-Stufe: Eifel district, Germany.

(7) *P. quadripartitum* Wedekind, 1923, p. 34. Lower Middle Devonian, Dohmophyllum-Stufe, Auburg Schichten: Eifel district, Germany.

(8) *P. tornatum* Wedekind, 1923, p. 34. Lower Middle Devonian, Dohmophyllum-Stufe, Üxheimer Schichten: Eifel district, Germany.

(9) *P. scissum* Wedekind, 1923, p. 34. Lower Middle Devonian, Heliophyllum-Stufe: Eifel district, Germany.

(10) *P. pseudofibrosa* Wedekind, 1923, p. 34. Lower Middle Devonian, Digonophyllum-Stufe [?Dohmophyllum-Stufe]: Eifel district, Germany.

(11) *P. richteri* Wedekind, 1923, p. 34. Lower Middle Devonian, Digonophyllum-Stufe [?Dohmophyllum-Stufe]: Eifel district, Germany.

(12) *P. cicatricosum* Wedekind, 1923, p. 34. Lower Middle Devonian, Heliophyllum-Stufe: Heiligenstein, Eifel district, Germany.

GENOLECTOTYPE (here chosen):—*P. praematurum* Wedekind.

REMARKS. Most of the species are only very briefly described. Wedekind, 1923, text-fig. 5 on p. 30, also figures as "*Ptenophyllum* n. sp." a specimen from the Lower Devonian Dohmophyllen-Stufe of the Eifel district. *P. gerolsteinense* Wedekind, 1923, p. 26, is a nomen nudum. See also Wedekind, 1924, p. 36.

PTERORRHIZA Ehrenberg, 1834, p. 312.

GENOSYNTYPES:—

(1) *Cyathophyllum radicans* Goldfuss, 1826, p. 55, pl. xvi, fig. 2. Middle Devonian: Eifel district, Germany.

(2) *Cyathophyllum marginatum* Goldfuss, 1826, p. 55, pl. xvi, fig. 3. Devonian: Bensberg, near Cologne, Germany.
(3) *Cyathophyllum excentricum* Goldfuss, 1826, p. 55, pl. xvi, fig. 4. Carboniferous, [Etroeungtian]: Ratingen, near Düsseldorf, Germany.
GENOLECTOTYPE (here chosen):—*C. marginatum* Goldfuss.
REMARKS. The holotype of *C. marginatum* is missing from the Goldfuss collection in Bonn, and the species cannot be recognised. The genus therefore lapses.

PTILOPHYLLUM Smith & Tremberth, 1927, p. 309—pre-occupied by *Ptilophyllum* Guérin-Méneville, 1845, p. 439, for a coleopteron.
GENOHOLOTYPE (by authors' original designation):—*P. lindströmi* Smith & Tremberth, 1927, p. 310, pl. vii, figs. 1–7. Silurian, horizon *f* of Lindström (=Ludlow): Östergarn, Isle of Gotland, Sweden.
REMARKS. We re-name this genus *Weissermelia*, q.v.

PTYCHOBLASTOCYATHUS Ludwig, 1866, pp. 188, 224–226—see R. Ludwig, 1865–1866, under "Literature."

PTYCHOCALAMOCYATHUS Ludwig, 1866, p. 216—see R. Ludwig, 1865–1866, under "Literature."

PTYCHOCHARTOCYATHUS Ludwig, 1866, pp. 189, 231—see R. Ludwig, 1865–1866, under "Literature."

PTYCHOCHARTOCYCLUS Ludwig, 1866, p. 232—see R. Ludwig, 1865–1866, under "Literature."

PTYCHOCHONIUM Ludwig, 1865, pp. 141, 144—see R. Ludwig, 1865–1866, under "Literature."

PTYCHOCYATHUS Ludwig, 1865–1866, pp. 139, 184, 187, 194–198—see R. Ludwig, 1865–1866, under "Literature."

PTYCHODENDROCYATHUS Ludwig, 1866, pp. 188, 215—see R. Ludwig, 1865–1866, under "Literature."

PTYCHOLOPAS Ludwig, 1866, p. 198—see R. Ludwig, 1865–1866, under "Literature."

PTYCHOPHLOEOCYATHUS Ludwig, 1866, p. 189—see R. Ludwig, 1865–1866, under "Literature."

PTYCHOPHLOEOLOPAS Ludwig, 1866, p. 236—see R. Ludwig, 1865–1866, under "Literature."

PTYCHOPHYLLUM Edwards & Haime, 1850, p. lxix.
GENOHOLOTYPE (by authors' original designation):—*P. stokesi* Edwards & Haime, 1850, p. lxix, described by Edwards & Haime, 1851, p. 407="species of

Caryophyllia" Bigsby, 1824, p. 203, and description of pl. xxix, fig. 1, right-hand figure not the left-hand one. [Silurian]: Drummond Island, Lake Huron, U.S.A.

REMARKS. *P. stokesi* is a coral with thin septa, which break up peripherally, and a wide marginal stereozone of small dissepiments—see Lang, 1926[2], text-fig. 2, nos. 1, 2, on p. 431. The generic name has been very generally but wrongly used for Silurian corals with a peripheral stereozone, such as *Fungites patellatus* Schlotheim, 1820, p. 347, and *Madrepora truncata* Linnaeus, 1758, p. 795. See also *Cystiphorolites* Miller.

PTYCHOPLACOCYATHUS Ludwig, 1866, pp. 190, 243—see R. Ludwig, 1865–1866, under "Literature."

PTYCHOTHROMBOCYATHUS Ludwig, 1866, pp. 190, 240—see R. Ludwig, 1865–1866, under "Literature."

PYCNACTIS Ryder, 1926, pp. 385, 386.

GENOHOLOTYPE (by author's original designation):—*Hyppurites* [sic] *mitratus* Schlotheim partim, 1820, p. 352. Silurian: Isle of Gotland, Sweden.

REMARKS. *H. mitratus* was founded by Schlotheim upon forty syntypes, mainly Silurian and Devonian corals from the Isle of Gotland, the Eifel district, Austria, and the Harz Mountains. Nine of those specimens are still preserved in the Geologisch-Paläontologisches Institut und Museum, Berlin, and one of them, though somewhat worn, agrees very closely in size and general form with the figure of *Turbinolia mitrata* var. β *obliqua* Hisinger, 1831, pl. viii, fig. 7, and 1837, pl. xxviii, fig. 10. It is trochoid, and 38 mm. long; the diameter of its very oblique calice is approximately 18 mm. There is a well-marked cardinal fossula, and the septa exhibit a markedly pinnate symmetry. We here choose this specimen as lectotype of *H. mitratus*. Ryder interpreted the species on English material from Gloucestershire.

See Butler, 1937, pp. 93–95, for a discussion of the relationship between *Pycnactis* and *Phaulactis* Ryder.

PYCNOLITHUS Lindström, 1899, p. 105.

GENOHOLOTYPE (by monotypy):—*P. bifidus* Lindström, 1899, p. 105, pl. xi, figs. 5–9. Silurian (detached piece of stone, probably from the *Stricklandinia* bed *b* or the next bed *c*): near Visby, Isle of Gotland, Sweden.

PYCNOPHYLLUM Lindström, 1873[2], p. 32, an invalid emendation for *Densiphyllum* Dybowski, which Lindström, 1883[3], p. 13, said was incorrectly formed.

REMARKS. The name *Pycnophyllum* has been much used for species of *Columnaria* Goldfuss with reinforced tissue.

PYCNOSTYLUS Whiteaves, 1884, p. 2.

GENOLECTOTYPE (see Miller, 1889, p. 202):—*P. guelphensis* Whiteaves, 1884, p. 3, pl. i, figs. 1, 1a, b. Silurian, Guelph Formation: New Hope, Guelph, Hespeler, Elora, and Durham, Ontario, Canada.

REMARKS. *P. guelphensis* is at least congeneric with the genotype of *Fletcheria* Edwards & Haime, q.v.

PYRGIA Edwards & Haime, 1851, pp. 159, 310.

GENOLECTOTYPE (see Hill & Smyth, 1938, p. 126):—*P. michelini* Edwards & Haime, 1851, p. 310, pl. xvii, figs. 8, 8a, b. Lower Carboniferous, Tournaisian: Tournai, Belgium.

REMARKS. Edwards & Haime intended *P. michelini* to be the genotype of *Pyrgia*, but did not formally designate it as such. The genus is considered by Nicholson, 1879, pp. 19, 219–225, and by Hill & Smyth, 1938, p. 126, to be a synonym of *Cladochonus* McCoy.

QUENSTEDTIA Rominger, 1876 [?1877], p. 71—pre-occupied by *Quenstedtia* Morris & Lycett, 1854, p. 96, for a Jurassic lamellibranch, and re-named *Romingeria* by Nicholson, 1879, p. 114.

GENOLECTOTYPE (see Nicholson, 1879, p. 115):—*Aulopora umbellifera* Billings, 1859[1], p. 119, text-fig. 21 on p. 119. Middle Devonian, Corniferous Series: Wainfleet, Canada West [Ontario].

RADIASTRAEA Stumm, 1937, p. 439.

GENOHOLOTYPE (by author's original designation):—*R. arachne* Stumm, 1937, p. 439, pl. liii, fig. 13, pl. lv, fig. 8. Lower Middle Devonian, basal 500 ft. of the Nevada Limestone: Lone Mountain, 18 miles north-west of Eureka, Nevada, U.S.A.

REGMAPHYLLUM Wedekind—see *Rhegmatophyllum* Wedekind.

REMARKS. Schindewolf, 1932, p. 471, and Soshkina, 1937, p. 85, also use this erroneous spelling.

RETIOPHYLLUM Počta, 1902, p. 180.

GENOHOLOTYPE (by monotypy):—*R. mirum* Počta, 1902, p. 181, pl. cviii, fig. 6. Lower Devonian, Koněprusy Limestones, *f*: Koněprusy; Middle Devonian, Bránik Limestones, *gα*: Tetin, Bohemia.

REMARKS. The genotype was founded on two syntypes which are badly preserved, so that the validity of the genus and its systematic position are uncertain. Prantl, 1938, p. 20, states that the specimens represent "an aberrant form which grows on one side."

REUSCHIA Kiär, 1930, pp. 54, 63.

GENOHOLOTYPE (by monotypy):—*R. aperta* Kiär, 1930, pp. 54, 63, pl. iv, figs. 1–3, and text-figs. 5 on p. 27 and 9a, b on p. 55. Upper Ordovician: Island of Stord, Bergen district, Norway.

RHABDOCYCLUS Lang & Smith, 1939, p. 152.

GENOHOLOTYPE (genolectotype of *Acanthocyclus* Dybowski, see Lang & Smith, 1927, p. 450):—*Palaeocyclus fletcheri* Edwards & Haime, 1851, p. 205, and 1855, p. 248, pl. lvii, figs. 3, 3a–f. Silurian, Wenlock Limestone: Dudley, Worcestershire, England.

REMARKS. The name *Rhabdocyclus* was proposed by Lang & Smith to replace *Acanthocyclus* Dybowski, which is pre-occupied.

RHABDOPHYLLUM Wedekind, 1927, pp. 42, 43.

GENOHOLOTYPE (by author's original designation, explanation of pl. iv, figs. 9–12):—*R. cylindricum* Wedekind, 1927, p. 44, pl. iv, figs. 9–12. Upper Silurian, Horizon III of Hedström: Högklint, Isle of Gotland, Sweden.

REMARKS. *Rhabdophyllum cylindricum* is congeneric with *Madrepora ananas* Linnaeus, 1758, p. 797, the genotype of *Acervularia* Schweigger, and therefore *Rhabdophyllum* is a synonym of *Acervularia*. Smith & Lang, 1931, p. 87, were in error in selecting *R. excavatum* Wedekind, 1927, p. 43, pl. iv, fig. 16, as genolectotype of *Rhabdophyllum*, since Wedekind had already designated *R. cylindricum* as genotype.

RHAPHIDOPHYLLUM Lindström, 1882[1], p. 14.

GENOHOLOTYPE (by monotypy):—*R. constellatum* Lindström, 1882[1], p. 14, text-figs. 3, 4 on plate. Silurian: Middle Tunguska, Tschuna River, Russia.

RHAPHIDOPORA Nicholson & Foord, 1886, p. 390.

GENOHOLOTYPE (by authors' original designation):—*Calamopora crinalis* Schlüter, 1880[2], p. 281. Middle Devonian: Berndorf, near Hillesheim, Eifel district, Germany.

REMARKS. Nicholson & Foord, 1886, p. 390, identify the genoholotype with *Chaetetes lonsdalei* Etheridge & Foord, 1884[1], p. 474, pl. xvii, figs. 2, 2a–c, from the Devonian of South Devonshire, England.

RHEGMAPHYLLUM Wedekind—see *Rhegmatophyllum* Wedekind.

RHEGMATOPHYLLUM as *Rhegmaphyllum* [sic] Wedekind, 1927, pp. 14, 74.

GENOLECTOTYPE (see Soshkina, 1937, p. 85):—*R. turbinatum* (Hisinger) Wedekind, 1927, p. 74=*Turbinolia turbinata* Hisinger, 1831, p. 128 partim, and 1837, p. 100 partim, pl. xxviii, fig. 6 (cet. excl.)=*Zaphrentis*? [sic] *conulus* Lindström, 1868, p. 428, pl. vi, fig. 8, text-fig. on p. 428=*Zaphrentis conulus* Lindström, 1882[1], p. 20. Very abundant in the Slite Marls at Slite and at Visby. Widely distributed in Gotland and ranges from Wenlock to Ludlow.

REMARKS. We regard *Rhegmatophyllum* as closely allied to *Streptelasma* Hall. The correct name of the genotype is, in our opinion, *R. conulus* Lindström. *Rhegmatophyllum* is spelt *Regmaphyllum* [sic] on p. 74 and as *Rhegmaphyllum* [sic] on p. 14 and explanation of pls. xxiv and xxv in Wedekind, 1927.

RHIZOPHYLLUM Lindström, 1866[1], p. 287.

GENOHOLOTYPE (by monotypy):—*Calceola gotlandica* F. A. Römer, 1856, p. 798. Silurian: east coast of Isle of Gotland, Sweden=*R. gotlandicum* (F. A. Römer) Lindström, 1866[1], p. 287, pl. xxx, figs. 10–15, pl. xxxi, figs. 1–8.

RHIZOPORA de Koninck, 1871, p. 323 (nomen nudum), and 1872, p. 117.

GENOHOLOTYPE (by monotypy):—*R. tubaria* de Koninck, 1872, p. 118, pl. xi, figs. 5, 5a. Lower Carboniferous, [Tournaisian]: Tournai, Belgium.

RHODOPHYLLUM as *Rodophyllum* [sic] Thomson, 1874, p. 556, emended to *Rhodophyllum* by Thomson, 1875[1], p. 273, 1876[1], p. 165, and 1877, p. 256, and by Thomson & Nicholson, 1876[2], p. 68.

GENOLECTOTYPE (see Gregory, 1917, pp. 222, 228):—*R. craigianum* Thomson, 1874, p. 557, pl. xx, figs. 1, 1a. Lower Carboniferous [Viséan], thin bed of shale: Trearn Quarry, Beith, Ayrshire, Scotland.

REMARKS. Hill, 1938[2], p. 65, considers the genus synonymous with *Dibunophyllum* Thomson & Nicholson. Although *Rhodophyllum* has priority, she advocates retaining *Dibunophyllum*, q.v.

RHOPALELASMA as *Rhopalolasma* [sic] Hudson, 1936, pp. 91, 93.

GENOHOLOTYPE (by author's original designation):—*R. tachyblastum* Hudson, 1936, p. 95, pl. iv, figs. 1a–e, 2a–e, pl. v, figs. 5a, b, 6a–c, text-fig. 1b on p. 93. Lower Carboniferous, Upper Tournaisian, Clitheroe Limestone: Butter Haw Quarry, Gargrave, near Skipton, Yorkshire, and other places in the Craven Lowlands, Yorkshire, England.

REMARKS. Hudson, 1936, p. 94, considers *Rhopalelasma* a homoeomorph of *Tachyelasma* Grabau.

RHOPALOLASMA Hudson—see *Rhopalelasma* Hudson.

RHOPALOPHYLLUM Wedekind, 1924, p. 52.

GENOSYNTYPES:—

(1) *R. fibratum* Wedekind, 1924, pp. 52, 61, text-figs. 76–79 on p. 51, and 80–82 on p. 53, and 97 on p. 62. Middle Devonian: Heiligenstein, near Gerolstein, Eifel district, Germany.

(2) *R. intratum* Wedekind, 1924, pp. 55, 63, text-figs. 83, 84 on p. 54, and 85 on p. 55. Same horizon and locality.

(3) *R. lacinatum* Wedekind, 1924, pp. 55, 63, text-fig. 86 on p. 55. Same horizon and locality.

(4) *R. cicatricosum* Wedekind, 1924, pp. 56, 63, text-fig. 87 on p. 56. Same horizon and locality.

(5) *R. spinosum* Wedekind, 1924, pp. 57, 64, text-figs. 90–93 on p. 58. Middle Devonian: Üxheim, near Hillesheim, Eifel district, Germany.

(6) *R. pseudofibratum* Wedekind, pp. 56, 57, 63, text-figs. 88, 89 on p. 57, and 98 on p. 62. Same horizon and locality.

(7) *R. scissum* Wedekind, 1924, pp. 59, 63, text-figs. 94, 95 on p. 59. Same horizon and locality.

(8) *Cyathophyllum heterophyllum* Edwards & Haime, 1851, p. 367, pl. x, figs. 1, 1a, b. Middle Devonian: Eifel district, Germany.

GENOLECTOTYPE (here chosen):—*C. heterophyllum* Edwards & Haime.

REMARKS. *Rhopalophyllum* is an exact synonym of *Acanthophyllum* Dybowski.

**RHYSMOTES* Fischer von Waldheim, 1832, pp. 416, 419, a Recent hexacoral.

GENOSYNTYPES:—

(1) *Astrea dipsacea* Lamarck, 1816, p. 262=*Madrepora favosa* Ellis & Solander, 1786, p. 167, pl. l, fig. 1. Recent.

(2) *R. centaureae* Fischer von Waldheim, 1832, p. 420. Recent: Java.

(3) *R. petiolatus* Fischer von Waldheim, 1832, p. 420, pl. iv, figs. 1–3. [Silurian] limestone: neighbourhood of Leningrad, Russia.

GENOLECTOTYPE (here chosen):—*A. dipsacea* Lamarck.

REMARKS. The genus is thus a synonym of *Favia* Oken, a hexacoral. Lindström, 1883[3], p. 13, agrees with the suggestion, attributed to F. Schmidt, that *R. petiolatus* is possibly a *Plasmopora* Edwards & Haime.

RHYSODES Smith & Tremberth, 1927, pp. 309, 311—pre-occupied by *Rhysodes* Illiger in Dalman, 1823, p. 93, for a Recent coleopteron, and re-named *Circophyllum* by Lang & Smith, 1939, p. 153.

GENOHOLOTYPE (by authors' original designation):—*R. samsugnensis* Smith & Tremberth, 1927, p. 311, pl. vii, figs. 8–11. Silurian, horizon *f* of Lindström (=Ludlow): Samsugn in Othem, Isle of Gotland, Sweden.

RHYTIDOPHYLLUM Lindström, 1883[1], p. 62.

GENOHOLOTYPE (by monotypy):—*R. pusillum* Lindström, 1883[1], p. 62, pl. ix, figs. 6–13. Silurian: Isle of Gotland, Sweden.

RODOPHYLLUM Thomson, 1874, p. 556—see *Rhodophyllum* Thomson.

ROEMERIA Edwards & Haime, 1851, pp. 152, 253.

GENOHOLOTYPE (by monotypy):—*R. infundibulifera* (Goldfuss) Edwards & Haime, 1851, pp. 152, 253=*Calamopora infundibulifera* Goldfuss, 1829, p. 78, pl. xxvii, figs. 1a, b. Middle Devonian: Eifel district and Bensberg, Germany.

ROMINGERIA Nicholson, 1879, p. 114, proposed for *Quenstedtia* Rominger, pre-occupied by *Quenstedtia* Morris & Lycett.

GENOLECTOTYPE (see Nicholson, 1879, p. 115):—*Aulopora umbellifera* Billings, 1859[1], p. 119, text-fig. 21 on p. 119. Middle Devonian, Corniferous Series: Wainfleet, Canada West [Ontario].

ROSSOPHYLLUM Stuckenberg 1888, pp. 11, 46.

GENOHOLOTYPE (by monotypy):—*R. novum* Stuckenberg, 1888, pp. 11, 47, pl. i, figs. 17–22. Carboniferous, Ober Kohlenkalk: Central Russia.

RYLSTONIA Hudson & Platt, 1927, p. 39.

GENOHOLOTYPE (by authors' original designation):—*R. benecompacta* Hudson & Platt, 1927, pp. 40, 44, pl. i, figs. 1–5. Carboniferous, D zone: Carlton Gill Quarry, near Rylstone, Yorkshire, and several other localities in the British Isles.

SALPINGIUM Smyth, 1928, p. 39.

GENOHOLOTYPE (by author's original designation):—*S. palinorsum* Smyth, 1928, p. 39, pls. i, ii. Lower Carboniferous, Zone C1: south of Doornoge Bay, and 250 yards north of the lighthouse, Hook Head, County Wexford, Ireland.

SANIDOPHYLLUM Etheridge, 1899[2], p. 154.

GENOHOLOTYPE (by monotypy):—*S. davidis* Etheridge, 1899[2], p. 154, pl. xvi, pl. xvii, fig. 1, pl. xix, fig. 7, pl. xx, figs. 4, 5, pl. xxxviii, fig. 2. [Lower Devonian], Moore Creek Limestone: Moore Creek, north of Tamworth, New South Wales, Australia.

SAPPORIPORA Ozaki, 1934, p. 74.

GENOHOLOTYPE (by author's original designation):—*S. favositoides* Ozaki, 1934, p. 75, pl. xv, figs. 5–7. Silurian, Ken-niho Limestone-conglomerate: near Sindô and Keihori, about 2 km. north-east of Ken-niho, North-West Korea.

REMARKS. The genus is probably synonymous with *Favosites* Lamarck in our opinion.

SARCINULA Lamarck, 1816, p. 222.

GENOLECTOTYPE (see Dana, 1846, p. 188, and 1848, p. 364):—*Madrepora organum* Linnaeus, 1758, p. 796=*Madrepora composita . . . coadunatis stellatis* Linnaeus, 1745, p. 25, fig. vi, n. 1, and 1749, p. 96, pl. iv, figs. vi, n. 1. [Silurian]: Isle of Gotland, Sweden.

REMARKS. Lamarck included in *Sarcinula organum* a Recent coral from the Red Sea, and the Silurian *Madrepora organum* of Linnaeus. Dana was therefore justified in selecting the latter as genolectotype of *Sarcinula*. His choice is valid and anticipates Edwards & Haime, who, 1848[3], pp. 310–311, and 1850, p. xxxi, more logically chose *Sarcinula organum* Lamarck partim, i.e., the Recent form, as the type of Lamarck's species. *Sarcinula* was used by McCoy, 1849, pp. 124, 125, and later, for species of *Orionastraea* Smith. See also *Syringophyllum* Edwards & Haime.

SCARITHODES Duncan, 1884[2], p. 177—errore pro *Acanthodes* Dybowski.

SCENOPHYLLUM Simpson, 1900, p. 210.

GENOHOLOTYPE (by author's original designation):—*Zaphrentis conigera* Rominger, 1876 [?1877], p. 149, pl. xl, lower tier. Middle Devonian, "Upper Helderbergian" [=Onondaga] Limestone: Mackinac Island, Lake Huron, and Falls of the Ohio, U.S.A.

REMARKS. Simpson mentions no locality, but the longitudinal section which he figures, 1900, text-fig. 30 on p. 211, is from the Falls of the Ohio, according to the statement on the original label.

SCHISTOTOECHELASMA as *Schistotoecholasma* [sic] Stewart, 1938, p. 45.

GENOHOLOTYPE (by author's original designation):—*S. typicalis* Stewart, 1938, p. 46, pl. ix, figs. 4–6. Middle Devonian, Columbus Limestone: vicinity of Columbus, Franklin County, Ohio, U.S.A.

REMARKS. We consider this to be synonymous with *Eridophyllum* Edwards & Haime, *S. typicalis* being merely a species in which the aulos is imperfectly formed.

SCHISTOTOECHOLASMA Stewart—see *Schistotoechelasma* Stewart.

SCHIZOPHORITES Gerth, 1921, p. 122.

GENOHOLOTYPE (by monotypy):—*S. dubiosus* Gerth, 1921, p. 123, pl. cxlix, fig. 23, pl. cl, figs. 26–28. Permian: Basleo, Timor.

SCHIZOPHYLLUM Wedekind, 1925, p. 59—pre-occupied by *Schizophyllum* Verhoeff, 1895, p. 243, for a Recent myriapod.

GENOHOLOTYPE (by author's original designation):—*Spongophyllum büchelense* Schlüter, 1889, p. 321, pl. vii, fig. 8. Upper Middle Devonian, Bücheler Schichten: Büchel, near Bergisch-Gladbach, Rhenish Prussia, Germany.

REMARKS. This genus belongs to the same group as *Endophyllum* Edwards & Haime, and lies near *Loepophyllum* Wedekind.

SCHLÜTERIA Wedekind, 1922[1], p. 3—pre-occupied by *Schlüteria* Fritsch in Fritsch & Kafka, 1887, p. 33, for a Chalk crustacean.

GENOHOLOTYPE (by author's original designation):—*S. emsti* Wedekind, 1922[1], p. 4, text-fig. 1 on p. 4. Middle Devonian, Upper Honseler Schichten: Emst, near Hagen, Rhenish Prussia, Germany.

REMARKS. We consider *Schlüteria emsti* to be congeneric, if not conspecific, with *Cyathophyllum caespitosum* Goldfuss, 1826, p. 60, pl. xix, fig. 2b, genotype of *Disphyllum* de Fromentel. See Lang & Smith, 1935[2], p. 559.

SCHOENOPHYLLUM Simpson, 1900, p. 214.

GENOHOLOTYPE (by monotypy):—*S. aggregatum* Simpson, 1900, p. 215, text-figs. 39, 40, on p. 215. Lower Carboniferous, St. Louis Limestone: Glasgow Junction, Barren County, Kentucky, U.S.A.

REMARKS. The locality mentioned above is that given on the original section, although it is not mentioned in Simpson's work. The longitudinal section which he illustrates (text-fig. 40) is figured upside down.

SCOLIOPHYLLUM as *Skoliophyllum* Wedekind, 1937, p. 52, fig. [2] on p. 50 (pl. vii)—no species mentioned.

GENOHOLOTYPE. Although no species is mentioned by Wedekind, nevertheless his remarks on and figure of *Scoliophyllum* show quite clearly that he had in mind *Cyathophyllum lamellosum* Goldfuss, 1826, p. 58, pl. xviii, figs. 3a, b, from the Middle Devonian of the Eifel district, Germany, and we here formally designate that species as genotype of *Scoliophyllum* Wedekind.

SCOLIOPORA (σκολιός, distorted, and πόρος, a pore) nom. nov. for *Plagiopora* Gürich, 1896, p. 143, non *Plagiopora* MacGillivray, 1895, p. 79.

GENOHOLOTYPE (genolectotype of *Plagiopora* Gürich, q.v.):—*Alveolites denticulatus* Edwards & Haime, 1851, p. 258, pl. xvi, figs. 4, 4a. Devonian: Bensberg, Westphalia, Germany.

SEMAEOPHYLLUM as *Semaiophyllum* [sic] Vollbrecht MS. in Wedekind, 1927, pp. 12, 70, 71.

GENOHOLOTYPE (by Wedekind's original designation):—*S. angustum* Vollbrecht MS. in Wedekind, 1927, pp. 70, 71 = *Cyathophyllum angustum* Lonsdale, 1839, p. 690, pl. xvi, fig. 9. Silurian: Attwood's Shaft, Coal Heath, Lickey, Worcestershire, England—see Lang & Smith, 1927, p. 470, first footnote.

REMARKS. Wedekind gives no reference to Lonsdale as the author of *S. angustum*, but Vollbrecht makes it quite clear in her paper, 1928, p. 1, that it is Lonsdale. *C. angustum* was included in *Phaulactis* Ryder by Lang & Smith, 1927, p. 469, pl. xxxv, fig. 1, and text-fig. 10 on p. 458.

SEMAIOPHYLLUM Vollbrecht MS. in Wedekind—see *Semaeophyllum* Vollbrecht MS. in Wedekind.

*SIDERASTRAEA as *Siderastrea* [sic] de Blainville, 1830, p. 335, and 1834, p. 370, a Recent hexacoral (as sub-genus of *Astraea*).

GENOLECTOTYPE (see Edwards & Haime, 1850, p. xli):—*Madrepora galaxea* Ellis & Solander, 1786, p. 168, pl. xlvii, fig. 7. Recent: Indian Ocean and Antilles.

REMARKS. Various Palaeozoic corals, including species of *Phillipsastraea*, have been recorded under this name.

SINOPHYLLUM Grabau, 1928, p. 99.

GENOHOLOTYPE (by author's original designation):—*Lophophyllum pendulum* Grabau partim, 1922, p. 48, pl. i, figs. 15a, b, 16a, b (non 17a, b—see Grabau, 1928, p. 100). Locality and horizon of holotype doubtful; various localities for the Permian in South China.

REMARKS. Grabau, 1922, p. 51, stated that the label of the holotype was lost in transit to and from America, but that he considered it "probably came from south China (probably Yunnan)." He added that "The horizon is probably late Lower Carboniferous (Dinantian) though judging from the acceleration, it might be regarded as younger." The genus is probably allied to *Lophophyllidium* Grabau. In 1928, p. 100, he described other specimens from the Middle Permian, Loping Formation, of Loping, Kiangsi Province, and stated (p. 104) that the holotype is now believed to come from the same horizon at Fengcheng in Kiangsi Province, China.

SINOSPONGOPHYLLUM Yoh, 1937, p. 56.

GENOHOLOTYPE (by author's original designation):—*S. planotabulatum* Yoh, 1937, p. 56, pl. vi, figs. 2–5. Middle Devonian: village of Chiao-ting, State of Ping-lo, Eastern Kwangsi, China.

SIPHONAXIS Dybowski, 1873[1], pp. 335, 390.

GENOHOLOTYPE (by monotypy):—*S. tubiferus* Dybowski, 1873[1], p. 390. [Drift]: Ostrominsk, near Burtneck Lake, Latvia.

REMARKS. Lindström, 1883[3], p. 13, says, "Founded on silicified and altered fragments of an undeterminable coral."

SIPHONODENDRON McCoy, 1849, p. 127 (the genus is diagnosed, but no species are named, though a figure is given for the genus—text-fig. *a* on right, p. 127), and 1851, p. 107 (three species are included in the genus for the first time).

GENOLECTOTYPE (see Chi, 1931, p. 26):—*S. aggregatum* McCoy, 1851, p. 108 = *Lithodendron pauciradialis* McCoy, 1844, p. 189, pl. xxvii, fig. 7. Carboniferous, Arenaceous Limestone: Magheramore, Tobercurry, Ireland (see McCoy, 1851, p. 108).

REMARKS. McCoy re-named *L. pauciradialis* in 1851 on invalid grounds. The species is a small phaceloid form of *Lithostrotion* Fleming, and therefore *Siphonodendron* and *Lithostrotion* are synonymous, unless the phaceloid and cerioid forms are separated generically. We do not consider that course either necessary or desirable.

SIPHONOPHRENTIS O'Connell, 1914, pp. 187, 191.
GENOHOLOTYPE (by author's original designation):—*Caryophyllia gigantea* Lesueur, 1821, p. 296. Middle Devonian: Waren, 30 miles from Utica, New York, U.S.A.

SIPHONOPHYLLIA Scouler MS. in McCoy, 1844, p. 187.
GENOHOLOTYPE (by monotypy):—*S. cylindrica* Scouler in McCoy, 1844, p. 187, pl. xxvii, fig. 5. Lower Carboniferous, Arenaceous Limestone: Ardsallagh, Drumquin, Ireland.
REMARKS. We consider this a synonym of *Caninia* Michelin. *S. cylindrica* is conspecific with *Caninia gigantea* Michelin, 1843, p. 81, pl. xvi, figs. 1a–e, from the Lower Carboniferous of Tournai, Belgium, Sarthe, France, etc.
Syphonophyllia [sic] *cylindrica* Scouler MS. occurs as a nomen nudum in Griffiths, 1842, p. 9.

SKOLIOPHYLLUM Wedekind—see *Scoliophyllum* Wedekind.

SMITHIA Edwards & Haime, 1851, p. 171.
GENOLECTOTYPE (see Gürich, 1909, p. 102):—*Astraea hennahi* Lonsdale partim, 1840, p. 697, pl. lviii, fig. 3 (not 3a). Devonian: Barton, north-west of St. Mary Church, Torquay, England.
REMARKS. The selection of the genolectotype by Gürich anticipates the choice by Lang & Smith, 1935[2], p. 560. Edwards & Haime intended *Astraea hennahi* Lonsdale to be the type of *Smithia*, but did not expressly state their intention. They had, however, already selected that species as genolectotype of *Phillipsastraea*, q.v., of which *Smithia* is, therefore, a synonym. See Smith, 1917, and Lang & Smith, 1935[2], p. 560.
The name *Smithia* occurs several times since 1851 as a homonym, being used for various animals.

SOCHKINEOPHYLLUM Grabau, 1928, p. 75.
GENOHOLOTYPE (by author's original designation):—*Plerophyllum artiense* Soshkina, 1925, p. 91, pl. ii, figs. 12, 12a. Permian, Artinskian: Russia.

SOMPHOPORA Lindström, 1883[2], p. 51.
GENOHOLOTYPE (by monotypy):—*S. daedalea* Lindström, 1883[2], p. 52, pl. vii, figs. 2–5. Silurian: Tshau-tiën, north-eastern Szechuan, China.
REMARKS. The genus is obscure.

SPARGANOPHYLLUM Wedekind, 1925, p. 13.
GENOHOLOTYPE (by Wedekind's designation):—*S. difficile* Borchers MS. in Wedekind, 1925, pp. 13, 14, text-fig. 9 on p. 11 (pl. ii). Higher part of the Middle Middle Devonian: Hand, near Bergisch-Gladbach, and Pillingserbachtal, near Letmathe, Rhenish Prussia, Germany.

SPHAEROPHYLLUM Wedekind, 1923, pp. 29, 35—genus caelebs. Wedekind refers to no species, although he gives certain of the generic characters on p. 35. The genus is stated to occur in the Lower Middle Devonian, Nohner Schichten, of the Eifel district, Germany.

SPHENOPOTERIUM Meek & Worthen, 1860, p. 447.
GENOHOLOTYPE (by author's original designation):—*S. obtusum* Meek & Worthen, 1860, p. 448, and 1866, p. 233, pl. xvii, figs. 2a–e. Lower Carboniferous, Keokuk division: Nauvoo, Illinois, U.S.A.
REMARKS. Hinde, 1896, p. 443, regards *Sphenopoterium* as a synonym of *Palaeacis* Haime, q.v. Meek & Worthen give no locality or horizon for the genotype in 1860.

SPINIFERINA Penecke, 1894, p. 592.
GENOHOLOTYPE (genolectotype of *Acanthodes* Dybowski, q.v.):—*Acanthodes cylindricus* Dybowski, 1873[1], p. 364, pl. i, figs. 11a–e. [Silurian, Salopian]: Lauberg and Isle of Karlsö, Gotland, Sweden.
REMARKS. Penecke founded *Spiniferina* as a new name to replace *Acanthodes* Dybowski, which was pre-occupied. *Acanthodes* therefore, is an absolute synonym of *Spiniferina* Penecke, and its genotype automatically becomes the genotype of *Spiniferina*. The genus is probably a synonym of *Tryplasma* Lonsdale.

SPINOPHYLLUM Wedekind, 1922[1], p. 5.
GENOHOLOTYPE (by monotypy):—*Campophyllum spongiosum* Schlüter, 1889, p. 304. Middle Devonian, Bücheler Schichten: Paffrather Mulde, neighbourhood of Cologne, Germany.
REMARKS. It is clear, judging from Wedekind's figure (text-fig. 2 on p. 6) and from his and Schlüter's descriptions, that *S. spongiosum* (Schlüter) is a very highly carinate form of *Disphyllum* de Fromentel, near *D. goldfussi* (Geinitz) =*D. caespitosum* (Goldfuss) partim, and Lang & Smith, 1935[2], p. 560, merge *Spinophyllum* with *Disphyllum*.

SPONGARIUM Lonsdale, 1839, p. 696.
GENOHOLOTYPE (by monotypy):—*S. edwardsii* Lonsdale, 1839, p. 696, pl. xxvi, fig. 10. Silurian, Upper Ludlow: Bircher Common, near Aymestry, Shropshire, England.
REMARKS. The position of this genus is very doubtful.

*SPONGOPHYLLIUM Ehrenberg, 1843, pp. 324, 396, 406, and 1844, pp. 67, 92, which is probably a diatom.
REMARKS. See *Spongophyllum* Edwards & Haime.

SPONGOPHYLLOIDES Meyer, 1881, p. 109.
GENOHOLOTYPE (by monotypy):—*S. schumanni* Meyer, 1881, p. 109, pl. v, figs. 12, 12a–c. Drift: East Prussia = *Cystiphyllum grayi* Edwards & Haime, 1851, p. 465, and 1855, p. 297, pl. lxxii, fig. 3 (? non fig. 3a). Silurian, Wenlockian: Dudley, Worcestershire, England=*Fungites* Pennant, 1757, p. 514, pl. xv, fig. 3.
REMARKS. See *Actinocystis* Lindström.

SPONGOPHYLLUM Edwards & Haime, 1851, p. 425 (non *Spongophyllium* Ehrenberg, 1843, pp. 324, 396, 406, and 1844, pp. 67, 92, probably a diatom).
GENOHOLOTYPE (by monotypy):—*S. sedgwicki* Edwards & Haime, 1851, p. 425. Devonian: Torquay, Devonshire, England.

REMARKS. This is a well-characterised genus which embraces species differing considerably in habit and detail. See Schlüter, 1881[4], pp. 91–99, pls. ix–xii, and 1881[6], pp. 210–220, pls. v–viii.

SQUAMEOPHYLLUM Smyth, 1933[2], p. 171.

GENOHOLOTYPE (by author's original designation):—*S. spumans* Smyth, 1933[2], p. 171, pl. ix, figs. 1–10. Carboniferous, Tournaisian: Tournai, Belgium.

REMARKS. *S. spumans* is allied to species of *Michelinia* de Koninck (=*Pleurodictyum* Goldfuss).

STAURIA Edwards & Haime, 1850, p. lxiv.

GENOHOLOTYPE (by authors' original designation):—*S. astreiformis* Edwards & Haime, 1850, p. lxiv, described and figured by Edwards & Haime, 1851, p. 316, pl. i, figs. 1, 1a–d. Silurian: Isle of Gotland, Sweden=*Madrepora favosa* Linnaeus partim, 1767[2], p. 1275=*Madrepora favosa* Linnaeus, 1758, p. 796. Habitat . . . fossilis [Silurian: Gotland]=*Madrepora aggregata* . . . *altioribus* Linnaeus, 1745, p. 26, fig. xvi, and 1749, p. 97, pl. iv, fig. xvi.

REMARKS. Edwards & Haime give several American localities of the Chazy Limestone as the provenance of *S. astreiformis*, in addition to Gotland and Esthonia. It becomes necessary, therefore, to designate a lectotype for that species, and accordingly we choose the specimen figured by them, 1851, pl. i, fig. 1. The species thus becomes synonymous with *Madrepora favosa* of Linnaeus, 1758, which referred solely to the Baltic fossil. In the twelfth edition of the "Systema Naturae," 1767, *Madrepora favosa* was extended to include a Recent form as well as the Baltic fossil; and this misled Edwards & Haime into re-naming the fossil.

Stauria is at most merely a sub-genus of *Columnaria* Goldfuss. See also Smith & Ryder, 1927.

STEGOPHYLLUM Scheffen, 1933, p. 34.

GENOHOLOTYPE (by author's original designation):—*S. densum* Scheffen, 1933, p. 34, pl. v, figs. 4, 5. Upper Ordovician, Zone 5b of Kiär, 1908: Lille Svartö, Tyrifjord, Norway.

STELECHOPHYLLUM Tolmachev, 1933, p. 287—new name for *Stylophyllum* Tolmachev *non* Reuss.

GENOLECTOTYPE (see Tolmachev, 1933, p. 287):—*Stylophyllum venukoffi* Tolmachev, 1924, pp. 318, xi, pl. xix, figs. 9, 10, and 1931, p. 607, pl. xxiii, fig. 2. Lower Carboniferous: Batchatskoïe and Zelentchikha, neighbourhood of Kusnetzk, Russia.

STELLIPORELLA Wentzel, 1895, p. 503.

GENOHOLOTYPE (by author's original designation):—*S. lamellata* Wentzel, 1895, pp. 503, 510, pl. iv, figs. 10–12. Silurian: Ebendaher, Bohemia.

REMARKS. Lindström, 1899, p. 60, considers the genotype to be conspecific with *Heliolites parvistella* C. F. Römer, 1861, p. 25, pl. iv, figs. 6a, b, and he accordingly (pp. 38, 60) merges *Stelliporella* in *Heliolites* Dana.

STENOPHYLLUM Amanshauser MS. emend. Wedekind, 1925, p. 9—pre-occupied by *Stenophyllum* Verhoeff, 1897, p. 122, for a Recent myriapod.

GENOHOLOTYPE (by Wedekind's designation):—*S. diluvianum* Amanshauser MS. in Wedekind, 1925, pp. 9, 12, text-figs. 3, 4 on p. 7 (pl. i). Middle Middle Devonian, Niedereher Cosmophyllenschichten: Niederehe, Eifel district, Germany.

REMARKS. We would merge this genus with *Leptoinophyllum* Wedekind.

STEREOELASMA as *Stereolasma* [sic] Simpson, 1900, p. 205.

GENOHOLOTYPE (by author's original designation):—*Streptelasma rectum* Hall, 1876 [1877?], pl. xix, figs. 1–13 partim=*Strombodes*? [sic] *rectus* Hall, 1843, p. 210, text-fig. 87, 5 on p. 209, and no. 48, fig. 5 on p. 44 of tables. Middle Devonian, Hamilton Shales: various localities in western New York=*Stereoelasma rectum* (Hall) Simpson, 1900, p. 205, text-figs. 16, 17 on p. 205.

REMARKS. Simpson does not indicate which of Hall's figures of *Streptelasma rectum* he considers to represent *Stereoelasma rectum* (Hall) and which *Lophelasma carinatum*, erected by him at the same time on other specimens of the same species; but he states that *Stereoelasma rectum* is *Strombodes*? [sic] *rectus* Hall. The syntypes of *Stereoelasma rectum* are, according to Simpson, without carinae, while in *Lophelasma carinatum* these are strongly developed. In all other respects the two corals are similar, more so in fact than Simpson considered them to be. Further, the transverse section of *Stereoelasma rectum*, which he figured, actually shows some traces of carinae. Thus, in our opinion the types of *Stereoelasma rectum* and of *Lophelasma carinatum* are conspecific, and are congeneric with *Metriophyllum bouchardi* Edwards & Haime, the genotype of *Metriophyllum* Edwards & Haime.

STEREOLASMA Hall—see *Stereoelasma* Hall.

STEREOPHYLLUM Schlüter, 1889, p. 339 (non *Stereophyllum* Grabau, q.v., nec *Stereophyllum* Soshkina, q.v.).

GENOHOLOTYPE (by monotypy):—*Cyathophyllum goldfussi* Edwards & Haime, 1851, p. 363, pl. ii, figs. 3, 3a. Devonian: Eifel district, Germany=*Plasmophyllum goldfussi* Schlüter, 1885[1], p. 10=*Mesophyllum* (?) [sic] *goldfussi* Schlüter, 1889, p. 336, pl. viii, figs. 4–13 (=*Mesophyllum goldfussi* on explanation of pl. viii, figs. 4–13).

REMARKS. *Stereophyllum* becomes a synonym of *Plasmophyllum* so long as *Cyathophyllum goldfussi*, and not *Cystiphyllum brevilamellatum* McCoy, is considered to be the genotype of *Plasmophyllum*, q.v.

STEREOPHYLLUM Grabau, 1917[1], p. 199, a nomen nudum, and pre-occupied by *Stereophyllum* Schlüter, 1889, p. 339, for a Devonian coral.

STEREOPHYLLUM Soshkina, 1937, pp. 19, 88—pre-occupied by *Stereophyllum* Schlüter, 1889, p. 339, for a Devonian coral.

GENOHOLOTYPE (by author's original designation):—*S. massivum* Soshkina, 1937, pp. 19, 89, pl. i, figs. 1, 2. Silurian, Middle Ludlow: mouth of the River Bardym, western slope of the Ural Mountains, U.S.S.R.

*STOMATOPORA Bronn, 1825, p. 27, a polyzoan.
GENOHOLOTYPE (by monotypy):—*Alecto dichotoma* Lamouroux, 1821, p. 84, pl. lxxxi, figs. 12–14. Jurassic: Caen, France.
REMARKS. Bronn erected *Stomatopora* to replace *Alecto* Lamouroux, pre-occupied by *Alecto* Leach, 1815, p. 61, for a crinoid. Later, he extended the genus to include *Aulopora serpens* Goldfuss.

STORTHYGOPHYLLUM Weissermel, 1894[1], p. 55, and 1894[2], p. 617.
GENOHOLOTYPE (by monotypy):—*S. megalocystis* Weissermel partim, 1894[1], p. 55, and 1894[2], p. 617, pl. xlix, fig. 6, non 7a, b. Drift ex Silurian: Preussisch-Holland, near Königsberg, Germany.
REMARKS. *S. megalocystis*, as defined by Weissermel, includes two species in our opinion, the one represented by pl. xlix, fig. 6, and the other by pl. xlix, figs. 7a, b. We, therefore, here designate the original of pl. xlix, fig. 6, as the lectotype. The other species (pl. xlix, figs. 7a, b), from the Drift ex Silurian of Siewenberg, Prussia, Germany, is conspecific with *Tubiporites tubulatus* Schlotheim, 1813, p. 37, the genotype of *Xiphelasma* Smith & Lang, q.v. Should the syntypes of *S. megalocystis* prove after all to be congeneric, then *Xiphelasma* becomes a synonym of *Storthygophyllum*.

STORTOPHYLLUM Wedekind, 1927, pp. 30, 31.
GENOSYNTYPES:—
(1) *S. simplex* Wedekind, 1927, p. 31, pl. iv, fig. 1, pl. xxix, figs. 13, 14. Silurian, Pilophyllumstufe: Lau backar, Isle of Gotland, Sweden.
(2) *S. cruciatum* Wedekind, 1927, p. 31, pl. iv, figs. 2, 3, pl. xxix, fig. 17, pl. xxx, fig. 36. Same horizon and locality.
(3) *S. concavum* Wedekind, 1927, p. 31, pl. iv, fig. 4. Same horizon and locality.
GENOLECTOTYPE (here chosen):—*S. simplex* Wedekind.
REMARKS. *Stortophyllum simplex* is clearly a species of *Tryplasma* Lonsdale, near to, if not conspecific with, *Cyathophyllum loveni* Edwards & Haime, 1851, p. 364, and 1855, p. 280, pl. lxvi, figs. 2, 2a.

STRATIPHYLLUM Scheffen, 1933 (May), p. 35.
GENOHOLOTYPE (by author's original designation):—*S. cavernosum* Scheffen, 1933, p. 35, pl. vi, fig. 1. Silurian, Llandovery, Zone 7b of Kiär, 1908: Limåstangen, Tyrifjord, Norway.

STRATIPHYLLUM as *Stratophyllum* [sic] Smyth, 1933[2] (September), pp. 171, 173—pre-occupied by *Stratiphyllum* Scheffen, q.v., and re-named *Ethmoplax* by Smyth, 1939, p. 859.
GENOHOLOTYPE (by author's original designation):—*S. tenue* Smyth, 1933[2], p. 173, pl. x, figs. 1–12. Carboniferous, Tournaisian: Tournai, Belgium.

STRATOPHYLLUM Smyth—see *Stratiphyllum* Smyth.

STREPHODES McCoy, 1849, p. 4.
GENOHOLOTYPE (by monotypy):—*S. multilamellatum* McCoy, 1849, p. 5, and 1851, p. 93, pl. iiiC, figs. 3, 3a. Lower Carboniferous: Arnside, Kendal, England, and Lisardrea, Boyle, County Roscommon, Ireland.

REMARKS. The lectotype of *S. multilamellatum* McCoy (here chosen as the specimen figured by McCoy, 1851, pl. iiiC, figs. 3, 3a) is labelled as coming from Arnside, Kendal, but it has all the appearance of a Bristol specimen. (Similarly, the type of *Lonsdaleia crassiconus* McCoy, 1849, p. 12, is labelled 'Carboniferous Limestone, Kendal,' "but there can be no question that the specimens are from the neighbourhood of Bristol"—Smith, 1916[1], p. 260.) The species is identical with *Palaeosmilia murchisoni* Edwards & Haime, 1848[3], p. 261. *Strephodes*, therefore, becomes a synonym of *Palaeosmilia* Edwards & Haime.

STREPTASTRAEA as *Streptastrea* [sic] Sandberger & Sandberger, 1856, p. 416.

GENOHOLOTYPE (by monotypy):—*S. longiradiata* Sandberger & Sandberger, 1856, p. 416, pl. xxxvii, figs. 3, 3a, b. Devonian, Schalstein Conglomerate: Löhnberger Weg, near Weillung, and Löhren, near Dillenburg, Nassau, Germany, which the authors identify with "*Astrea hennahii* Lonsdale, 1840, p. 697, pl. lviii, fig. 3 . . . Torquay, Plymouth and Newton-Bushel in Devonshire, in Stringocephalenkalk."

REMARKS. Sandberger & Sandberger state that *Streptastraea* is "*Smithia* Milne-Edwards & Haime," which is a synonym of *Phillipsastraea* d'Orbigny. *Streptastraea* is thus also a synonym of *Phillipastraea*.

STREPTELASMA as *Streptoplasma* [sic] Hall, 1847, pp. 17, 49, 69–71, and as *Streptelasma*, explanation to pl. iv, fig. 6, pl. xii, fig. 4, pl. xxv, figs. 1–4.

GENOLECTOTYPE (see C. F. Römer, 1861, p. 19):—*S. corniculum* Hall, 1847, p. 69, pl. xxv, figs. 1a–d. Ordovician, Trenton Limestone: Trenton Falls and other localities, New York, U.S.A.

REMARKS. The form *Streptelasma* should be used as πλάσμα does not, and ἔλασμα does, mean 'lamella.' It is evident that, of the two forms Hall actually used, he meant to use *Streptelasma*.

Hall & Simpson, 1887, p. xi, quote *S. expansum* Hall, 1847, p. 17, pl. iv, figs. 6a, b, as genotype, but this selection was forestalled by that of C. F. Römer. See *Cionelasma* Simpson, and *Rhegmatophyllum* Wedekind.

STREPTOPHYLLUM Grabau MS. in Chi, 1931, p. 24.

GENOSYNTYPES:—

(1) *Clisiophyllum hisingeri* Edwards & Haime, 1851, p. 410, pl. vii, figs. 5, 5a. Silurian: Isle of Gotland, Sweden.

(2) *C. danaanum* Edwards & Haime, 1851, p. 412 (mis-spelt *C. danianum* [sic] by Chi, 1931, p. 24). Silurian: Perry County, Tennessee, U.S.A.

GENOLECTOTYPE (here chosen):—*C. hisingeri* Edwards & Haime = *Dinophyllum involutum* Lindström, 1882[2], p. 21, and 1896[2], p. 38, pl. vii, figs. 87–98.

REMARKS. Thus *Streptophyllum* is a synonym of *Dinophyllum* Lindström. See *Clisiaxophyllum* Grabau in Chi and *Dinophyllum* Lindström.

STREPTOPLASMA Hall—see *Streptelasma* Hall.

STRIATOPORA Hall, 1851, p. 400, and 1852[1], p. 156.

GENOHOLOTYPE (by monotypy):—*S. flexuosa* Hall, 1851, p. 400, and 1852[1], p. 156, pl. xlB, figs. 1a–e. Silurian, Niagara Shale: Lockport, New York, U.S.A.

REMARKS. See *Cyathopora* Owen.

STRINGOPHYLLUM Wedekind, 1922[1], p. 8.

GENOLECTOTYPE (see Wedekind, 1925, p. 64):—*S. normale* Wedekind, 1922[1], p. 9, text-figs. 5, 6 on p. 9. Middle Devonian, Stringocephalenkalk: Sundwig, Germany.

STROBILASMA Scheffen—see *Strobilelasma* Scheffen.

STROBILELASMA as *Strobilasma* [sic] Scheffen, 1933, p. 32.

GENOHOLOTYPE (by author's original designation):—*S. dentatum* Scheffen, 1933, p. 32, pl. v, fig. 8. Silurian, Llandovery, Stage 6 of Kiaer, 1908: Malmö, Norway.

STROMBASTRAEA Ehrenberg, 1834, p. 311.

Astraea Strombastraea de Blainville, Ehrenberg, 1834, p. 311=*Astraea*, Les Strombastrées, de Blainville, 1830, p. 341, and 1834, pl. 376, which, as defined by de Blainville, is *Strombodes* Goldfuss and *Strombodes* Schweigger, and includes the three species, *Astraea quinquangulosa* de Blainville (= *Strombodes pentagonus* Goldfuss), *Astraea stellaris* (Linnaeus), and *Astraea truncata* (Linnaeus); these three species are, therefore, the genosyntypes of *Strombastraea* Ehrenberg.

GENOSYNTYPES:—

(1) *Astraea quinquangulosa* de Blainville, 1830, p. 341, and 1834, p. 376, pl. liv, fig. 4 = *Strombodes pentagonus* Goldfuss, 1826, p. 62, pl. xxi, figs. 2a, b. "Uebergangskalk," [Silurian]: Drummond Island, Lake Huron, Michigan, U.S.A.

(2) *Astraea stellaris* (Linnaeus) de Blainville, 1830, p. 342, and 1834, p. 376= *Madrepora stellaris* Linnaeus, 1758, p. 795=*Madrepora composita* . . . *dilatato* Linnaeus, 1745, p. 24, figs. xi, n. 4, and 1749, p. 94, pl. iv, figs. xi, n. 4. [Silurian]: Isle of Gotland, Sweden.

(3) *Astraea truncata* (Linnaeus) de Blainville, 1830, p. 342, and 1834, p. 376= *Madrepora truncata* Linnaeus, 1758, p. 795=*Madrepora composita* . . . *centro cylindraceo-concavis* Linnaeus, 1745, p. 22, figs. x, n. 3, and 1749, p. 93, pl. iv, figs. x, n. 3. [Silurian]: Isle of Gotland, Sweden.

GENOLECTOTYPE (here chosen):—*Astraea stellaris* (Linnaeus)=*Madrepora stellaris* Linnaeus.

REMARKS. The genotype of *Strombodes* Schweigger is also *Madrepora stellaris* Linnaeus. Therefore, *Strombastraea* Ehrenberg=*Strombodes* Schweigger.

STROMBODES Schweigger, 1819, table vi (non *Strombodes* Gistel, 1857, p. 602, a Recent coleopteron, nec *Strombodes* Sjöbring, 1902, p. 358, a Recent protozoan).

GENOLECTOTYPE (see McCoy, 1849, p. 10):—*Madrepora stellaris* Linnaeus, 1758, p. 795 = *Madrepora composita* . . . *dilatato* Linnaeus, 1745, p. 24, figs. xi, n. 4, and 1749, p. 94, pl. iv, figs. xi, n. 4. [Silurian] on the shore: Kyllei and Slite, Isle of Gotland, Sweden.

REMARKS. Goldfuss, 1826, p. 62, pl. xxi, figs. 2a, b, described as *Strombodes pentagonus* a species of *Arachniophyllum* Dana from Drummond Island, Lake Michigan, U.S.A.; while McCoy, 1849, pp. 10, 136, and later, placed certain

cerioid species of *Lonsdaleia* McCoy in Schweigger's genus. Edwards & Haime, 1850, p. lxx, wrongly quoted Goldfuss's species as genotype of *Strombodes*, and in this misuse of the name they have been widely followed. See *Donacophyllum* Dybowski and *Strombastraea* Ehrenberg.

STYLARAEA Seebach, 1866, p. 306—pre-occupied by *Stylaraea* Edwards & Haime, 1851, p. 143, for a Recent hexacoral, and re-named *Tumularia* by Robinson, 1916, p. 163.

GENOHOLOTYPE (by monotypy):—*S. roemeri* Seebach, 1866, p. 306, pl. iv, fig. 2. Ordovician: Wesenberg, Esthonia.

STYLASTRAEA Lonsdale, 1845[1], p. 619 (non *Stylastraea* de Fromentel, 1861, p. 223, a Jurassic hexacoral).

GENOLECTOTYPE (see Miller, 1889, p. 205):—*S. inconferta* Lonsdale, 1845[1], p. 621, pl. A, figs. 2, 2a–c. Carboniferous: Kossatchi-Datchi, south of Miask, east of the Ural Mountains, Russia.

REMARKS. In founding the genus, Lonsdale mainly based it on "*Lithostrotion sive Basaltes . . .*" Lhuyd, 1699, p. 122, pl. xxiii=*Lithostrotion striatum* Fleming, 1828, p. 508=*Madrepora vorticalis* Parkinson, 1808, p. 45, from the Carboniferous Limestone, British Isles; and Smith & Lang, 1930, p. 178, quoted that species as genolectotype. Miller, however, had already fixed the other genosyntype as the genolectotype. The genus is generally considered a synonym of *Lithostrotion* Fleming.

STYLAXIS McCoy, 1849, p. 119.

GENOSYNTYPES:—

(1) *S. major* McCoy, 1849, p. 120, and 1851, p. 101, pl. iiiA, figs. 4, 4a, b. Carboniferous Limestone: Derbyshire, England.

(2) *S. flemingi* McCoy, 1849, p. 121, and 1851, p. 100, pl. iiiA, figs. 3, 3a, b. Carboniferous Limestone: Derbyshire, England.

GENOLECTOTYPE (here chosen):—*S. flemingi* McCoy.

REMARKS. We consider the genus a synonym of *Lithostrotion* Fleming, since *F. flemingi* is conspecific with *L. portlocki* Bronn sp., 1848, p. 128. Edwards & Haime, 1850, p. lxxi, mention it as a synonym of *Nematophyllum* McCoy.

STYLIDIUM Eichwald, 1855[2], p. 3, explanation to pl. xxx, fig. 13, and 1856, p. 112.

GENOHOLOTYPE (by monotypy):—*S. spongiosum* Eichwald, 1855[2], p. 3, pl. xxx, fig. 13; 1856, p. 113; and 1860, p. 456. Ordovician, Bergkalk: Kaluga, Medynsk, Russia.

REMARKS. This is probably a heliolitid.

STYLIDOPHYLLUM de Fromentel, 1861, p. 316.

GENOLECTOTYPE (see Chi, 1931, p. 44):—*S. floriforme* (Martin) de Fromentel, 1861, p. 316=*Erismatolithus Madreporites* (*floriformis*) Martin, 1809, pl. xliii, figs. 3, 4, pl. xliv, fig. 5. Lower Carboniferous: Derbyshire, England.

REMARKS. We consider the genolectotype to be conspecific with the other genosyntype, *Cyathophyllum papillatum* Fischer von Waldheim, 1837, p. 155,

pl. xxxi, fig. 4=*Astraea labiatum* Fischer von Waldheim, 1830, explanation of pl. xxxi, fig. 4. In our view, the genus is congeneric with *Lonsdaleia* McCoy, and *Stylidophyllum*, if retained at all, should be used only in a genomorphic sense for cerioid forms of *Lonsdaleia*.

STYLONITES Gerth, 1921, p. 104.

GENOHOLOTYPE (by monotypy):—*S. porosus* Gerth, 1921, p. 104, pl. cxlviii, figs. 9, 10. Permian: Basleo, and between Niki-Niki and Noil Tonini, Timor.

STYLOPHYLLUM Tolmachev, 1924, pp. 316, xi, xii, and 1931, p. 606—preoccupied by *Stylophyllum* Reuss, 1854, p. 132, for a Mesozoic coral, and re-named *Stelechophyllum* by Tolmachev, 1933, p. 287, q.v.

GENOLECTOTYPE (see Tolmachev, 1933, p. 287):—*S. venukoffi* Tolmachev, 1924, pp. 318, xi, pl. xix, figs. 9, 10, and 1931, p. 607, pl. xxiii, fig. 2. Lower Carboniferous: Batchatskoïe, and Zelentchikha, neighbourhood of Kusnetzk, Russia.

STYLOSTROTION Chi, 1935, p. 20.

GENOHOLOTYPE (by author's original designation):—*S. intermedium* Chi, 1935, p. 22, pl. i, figs. 1a–f, text-figs. 6a, b. Lower Carboniferous, Weiningian System: Taloshan, near Szumenshü, Lochenghsien, Kwangsi, South-West China.

REMARKS. *Stylostrotion* is only one of the many variations of *Lithostrotion* Fleming.

SUBLONSDALEIA as *Sublonsdalia* [sic] Lissitzin, 1925, p. 68.

GENOHOLOTYPE (by monotypy):—*S. intermedia* Lissitzin, 1925, p. 68, pl. i, figs. 1, 2. Lower Carboniferous: Novotcherkassk, north of Lake Teniz, Asiatic Russia.

REMARKS. Lissitzin, 1925, p. 68, pl. i, fig. 6, also figured *Sublonsdalia* [sic] sp., from the Lower Carboniferous of the same locality.

SUBLONSDALIA Lissitzin—see *Sublonsdaleia* Lissitzin.

SYCHNOELASMA (συχνός, many together, and ἔλασμα=a plate) nom. nov. for *Verneuilia* Stuckenberg, 1895, pp. 40, 194, non *Verneuilia* Hall & Clarke, 1894, p. 762.

GENOHOLOTYPE (genoholotype of *Verneuilia* Stuckenberg by monotypy):—*Verneuilia urbanowitschi* Stuckenberg, 1895, pp. 41, 194, pl. vi, fig. 6. Carboniferous, Unterkohlenkalk: Ural Mountains, Russia.

SYCIDIUM Sandberger, 1849, p. 671, and Sandberger in Steininger, 1849, p. 9 (non *Sycidium* Haeckel, 1870, p. 245, a Cretaceous porifer).

GENOHOLOTYPE (by monotypy):—*S. reticulatum* Sandberger, 1849, p. 672, pl. viiiB, figs. a–d, and Sandberger in Steininger, 1849, p. 9. Middle Devonian: Eifel district, Germany.

REMARKS. Probably a charaphyte plant, although described as a coral by Sandberger, and referred to the polyzoa by some later writers. See Peck, 1934.

There is no evidence as to which of the two papers in 1849 was published first.

SYLINDROPORA [sic] Yabe & Hayasaka, 1915, p. 79—errore pro *Cylindrophyllum* Yabe & Hayasaka.

SYMPLECTOPHYLLUM Hill, 1934, p. 64.

GENOHOLOTYPE (by author's original designation):—*S. mutatum* Hill, 1934, p. 64, pl. vii, figs. 1–33. Lower Carboniferous, Upper Viséan, Riversleigh Limestone: Latza's Farm, Portions 21 and 22, Parish of Malmoe, County of Yarrol, near Mundubbera, Queensland, Australia.

SYNAMPLEXUS Grabau, 1922, p. 62.

GENOHOLOTYPE (by monotypy): *Amplexus viduus* Lindström, 1883[2], p. 62, pl. v, fig. 1. Upper Silurian: Tshau-tiën, north-eastern Province of Sz-tshwan [Szechuan], China.

SYNAPTOPHYLLUM Simpson, 1900, p. 212.

GENOHOLOTYPE (by author's original designation):—*Diphyphyllum arundinaceum* Billings, 1859[1], p. 134. Middle Devonian, Corniferous [=Onondaga] Limestone: Rama's farm near Port Colborne, and various other localities in Ontario, Canada.

REMARKS. The genotype of *Synaptophyllum*, and the other species which Simpson mentions as examples, agree with *Disphyllum* {*Phacelophyllum*} *caespitosum* (Goldfuss) in the character of the tabulae, the arrangement of the septa, and in having "horseshoe" dissepiments; but the outer dissepiments when present are as in *Disphyllum goldfussi* Geinitz. The distinguishing characters are the digitate septa and usually strong carinae, although Simpson stresses the radiciform processes which often unite the corallites (see Simpson, 1900, text-figs. 33–37 on p. 213). We would merge *Synaptophyllum* in *Disphyllum* de Fromentel, or at most consider it as a genomorph of that genus.

SYPHONOPHYLLIA [sic] Scouler—see *Siphonophyllia* Scouler.

SYRINGAXON Lindström, 1882[2], p. 20.

GENOHOLOTYPE (by monotypy):—*S. siluriense* McCoy, Lindström, 1882[2], p. 20= *Cyathaxonia siluriensis* McCoy, 1850, p. 281, and 1851, p. 36, pl. 1c, figs. 11, 11a. Silurian, Upper Ludlow: Underbarrow, Kendal, Westmorland, England.

REMARKS. Lindström merely gave McCoy's species in a faunal list under the new generic name, but added no diagnosis of the genus nor any explanation. An examination of the holotype of *Laccophyllum acuminatum* Simpson, the genotype of *Laccophyllum* Simpson, shows that that genus is congeneric with, and therefore a synonym of, *Syringaxon*. *Alleynia* Počta is also synonymous. See Butler, 1935, and Prantl, 1938, pp. 21–23.

SYRINGOLITES Hinde, 1879, p. 244.

GENOHOLOTYPE (by monotypy):—*S. huronensis* Hinde, 1879, p. 246, text-figs. A–D on p. 245. Silurian, Niagaran: near Manitouwaning, Great Manitoulin Island, Lake Huron, Canada.

SYRINGOPHYLLUM Edwards & Haime, 1850, p. lxxii (non *Syringophyllum* Ulrich in Miller, 1889, p. 166, and Ulrich, 1890, p. 250, a Devonian porifer, nec *Syringophyllum* Grabau & Yoh in Yoh, q.v.).

GENOHOLOTYPE (by authors' original designation):—*Madrepora organum* Linnaeus, 1767[2], p. 1278 = *M. organū* Linnaeus, 1758, p. 796 = *Madrepora composita . . . coadunatis stellatis*, Linnaeus, 1745, p. 25, figs. vi, n. 1, and 1749, p. 96, pl. iv, figs. vi, n. 1. Lower Silurian: Isle of Gotland, Sweden.

REMARKS. Edwards & Haime, overlooking the tenth edition of Linnaeus's "Systema Naturae," quote the twelfth edition, 1767[2], p. 1278. *M. organum* is the genolectotype of *Sarcinula* Lamarck, and hence *Syringophyllum* is an exact synonym of *Sarcinula*. It is not, however, as Cox, 1936, p. 23, states, a nomen nudum.

SYRINGOPHYLLUM Grabau & Yoh in Yoh, 1929[2], p. 1—pre-occupied by *Syringophyllum* Edwards & Haime, 1850, p. lxxii, for a Silurian coral, and re-named *Kwangsiphyllum* by Grabau & Yoh in Yoh, 1931, p. 79.

GENOHOLOTYPE (by monotypy):—*S. permicum* Grabau & Yoh in Yoh, 1929[2], p. 2, pl. i, figs. 1, 1a, b, pl. ii, figs. 1, 1a, b. Lower Permian, *Tetrapora* Bed: 1 li south-west of Ho-Mu-Shih, Jung Hsien, north Kwangsi Province, China.

REMARKS. Although the paper is under Yoh's name only, both *Syringophyllum* and *S. permicum* are referred to Grabau & Yoh.

SYRINGOPORA Goldfuss, 1826, p. 75.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. lxii):—*S. ramulosa* Goldfuss, 1826, p. 76, pl. xxv, fig. 7. [Carboniferous], "aus dem Uebergangskalk von Olne im Limburgischen," Germany.

REMARKS. Edwards & Haime give *Syringopora* as a synonym of the later *Harmodites* Fischer von Waldheim, 1828, and take *S. ramulosa* as the genotype of *Harmodites*, thereby implying that they consider it the genotype of *Syringopora*. See *Drymopora* Davis, *Harmodites* Fischer von Waldheim, and *Vaughanites* Paul.

TABULARIA Soshkina, 1937, pp. 71, 97.

GENOHOLOTYPE (by author's original designation, pp. 71, 97):—*T. turiensis* Soshkina, 1937, pp. 72, 97, pl. xiii, figs. 3–5. Silurian, Upper Wenlock: eastern slope of the Ural Mountains, left bank of the River Tura, near Elkino, U.S.S.R.

TABULOPHYLLUM Fenton & Fenton, 1924, p. 30.

GENOHOLOTYPE (by authors' original designation):—*T. rectum* Fenton & Fenton, 1924, p. 31, pl. vi, figs. 8–12. Upper Devonian, Hackberry Stage, *Spirifer* zone and *Idiostroma* zone: Hackberry Grove, Cerry Gordo County, Iowa, U.S.A.

REMARKS. We consider *Apolythophyllum* Walther a synonym of *Tabulophyllum*.

TACHYELASMA as *Tachylasma* [sic] Grabau, 1922, p. 34.

GENOHOLOTYPE (by author's original designation):—*T. cha* Grabau, 1922, p. 35, pl. i, figs. 2a, b, text-fig. 50 on p. 36. Permian: Province of Yun-nan, China (see Grabau, 1928, p. 147. Grabau 1922, p. 37, records the species as Carboniferous, but he states that the labels of the types were lost in transit to and

from America, although there was reason for believing that it came "from South China possibly Yun-nan.")

REMARKS. Soshkina, 1925, pp. 84–85, suggests that *Tachyelasma* is a synonym of *Ufimia* Stuckenberg. See also Grabau, 1928, p. 44, for a discussion of the genus; and also *Rhopalelasma* Hudson.

TACHYLASMA Grabau—see *Tachyelasma* Grabau.

TAENIOBLASTOCYATHUS Ludwig, 1866, pp. 188, 226—see R. Ludwig, 1865–1866, under "Literature."

TAENIOCALAMOCYATHUS Ludwig, 1866, p. 219—see R. Ludwig, 1865–1866, under "Literature."

TAENIOCALAMOLOPAS Ludwig, 1866, p. 218—see R. Ludwig, 1865–1866, under "Literature."

TAENIOCHARTOCYCLUS Ludwig, 1866, pp. 189, 233—see R. Ludwig, 1865–1866, under "Literature."

TAENIOCYATHUS Ludwig, 1865–1866, pp. 139, 184, 187, 199–201—see R. Ludwig, 1865–1866, under "Literature."

TAENIODENDROCYATHUS Ludwig, 1866, p. 218—see R. Ludwig, 1865–1866, under "Literature."

TAENIODENDROCYCLUS Ludwig, 1866, pp. 188, 220—see R. Ludwig, 1865–1866, under "Literature."

TAENIODENDROLOPAS Ludwig, 1866, pp. 188, 216–218—see R. Ludwig, 1865–1866, under "Literature."

TAENIOLOPAS Ludwig, 1866, pp. 187, 201–203—see R. Ludwig, 1865–1866, under "Literature."

TAENIOPHLOEOLOPAS Ludwig, 1866, pp. 189, 237—see R. Ludwig, 1865–1866, under "Literature."

TAENIOPLACOCYATHUS Ludwig, 1866, pp. 190, 243—see R. Ludwig, 1865–1866, under "Literature."

TAENIOTHROMBOCYATHUS Ludwig, 1866, pp. 190, 241—see R. Ludwig, 1865–1866, under "Literature."

TEMENIOPHYLLUM as *Temnophyllum* [sic] Walther, 1928, p. 120.

GENOSYNTYPES:—

(1) *T. latum* Walther, 1928, p. 123, text-fig. 14 on p. 124.

(2) *T. astrictum* Walther, 1928, pp. 123, 124.

(3) *T. nodosum* Walther, 1928, pp. 123, 125, text-figs. 15, 16 on p. 125.
(4) *T. inflatum* Walther, 1928, pp. 123, 126, text-fig. 17 on p. 126.
(5) *T. obliquum* Walther, 1928, pp. 123, 126.
(6) *T. resupinatum* Walther, 1928, pp. 123, 126, text-fig. 12 on p. 122.
(7) *T. tenue* Walther, 1928, pp. 123, 127.
(8) *T. major* Walther, 1928, pp. 123, 127.
(9) *T. clavatum* Walther, 1928, pp. 123, 128, text-fig. 18 on p. 128.
(10) *T. ornatum* Walther, 1928, pp. 123, 128, text-fig. 19 on p. 128.

All Upper Middle Devonian: apparently Grund, Harz Mountains, Germany.

GENOLECTOTYPE (here chosen):—*T. latum* Walther.

TEMNOPHYLLUM Walther—see *Temeniophyllum* Walther.

TENUIPHYLLUM Soshkina, 1937, pp. 31, 91.

GENOHOLOTYPE (by author's original designation, pp. 31, 91):—*T. ornatum* Soshkina, 1937, pp. 32, 91, pl. xvi, figs. 3, 4. Silurian, Wenlockian: right bank of the Vya river, near Elkino, eastern slope of the Ural Mountains, U.S.S.R.

TERATOPHYLLUM (τέρας,–ατος, a monstrosity, and φύλλον, a leaf or septum) nom. nov. for *Platyphyllum* Lindström, 1883[1], p. 40, non *Platyphyllum* Audinet-Serville, 1831, p. 145.

GENOHOLOTYPE (genoholotype of *Platyphyllum* Lindström by monotypy):—*Platyphyllum sinense* Lindström, 1883[1], p. 41, and 1883[2], p. 68, pl. v, figs. 8–12. Silurian: Tshau-tiën, north-eastern Province of Sz-tshwan [Szechuan], China.

TETRADIUM Dana, 1848, p. 701 (non *Tetradium* Schmidt, 1874, p. 42, which Schmidt suggests may be an Ordovician conulariid).

GENOHOLOTYPE (by designation of Safford, 1856, p. 237, who first referred species to the genus):—*T. fibratum* Safford, 1856, p. 237, text-fig. 2 on p. 237. Upper Ordovician: Central Tennessee, U.S.A.

REMARKS. Nicholson, 1879, p. 232, states that *T. minus* Safford is the genotype, but his selection is invalid.

TETRAPHYLLUM Ludwig, 1865, pp. 143, 154—see R. Ludwig, 1865–1866, under "Literature."

TETRAPORA Yabe & Hayasaka, 1915, p. 87—pre-occupied by *Tetrapora* Quenstedt, 1857, p. 666, for a Jurassic polyzoan.

GENOHOLOTYPE (by authors' original designation):—*T. elegantula* Yabe & Hayasaka, 1915, p. 89, and 1920, pl. vi, figs. 4a, b, pl. ix, figs. 9a, b. Carboniferous? [sic] [Permian, Chihsia Limestone, *T. elegantula* zone (see Yoh & Huang, 1932, p. 4)]: Province of Fu-kien; Kung-shan, Hui-tso-hsien, Province of Yun-nan; and other localities in South China.

REMARKS. We re-name this genus *Hayasakaia*, q.v. It is allied to *Syringopora* Goldfuss. In pl. ix, figs. 9a, b, *T. elegantula* is referred to as *T. elegaus* [sic].

THAMNOPHYLLUM Penecke, 1894, p. 593.

GENOLECTOTYPE (see Lang & Smith, 1935[2], p. 564):—*T. stachei* Penecke, 1894, p. 594, pl. viii, figs. 1–3, pl. xi, figs. 1, 2. Lower Devonian, *barrandei*–Schichten, and Lower Middle Devonian, *cultrijugatus*–Schichten: numerous localities in the neighbourhood of Graz, Austria.

REMARKS. See also Lang & Smith, 1935[2], pp. 563, 581–584.

THAMNOPORA Steininger, 1831, p. 10, and 1834, p. 338 (non *Thamnopora* Hall, 1883[3], p. 158, a Devonian polyzoan).

GENOSYNTYPES:—

(1) *T. madreporacea* Steininger, 1831, p. 11, and 1834, p. 338.
(2) *T. milleporacea* Steininger, 1831, p. 11, and 1834, p. 338.
Both Middle Devonian: Eifel District, Germany.

GENOTYPE:—*T. madreporacea* Steininger. We consider that Steininger designated the type of *Thamnopora* in the following words: "Ich habe diesen korall [*T. madreporacea*] von den Alveoliten getrennt und daraus ein besonders genus mit den namen *Thamnopora* gebildet." But, in case it is contended that this statement does not formally determine the genotype, Lang & Smith in Hill, 1937[2], p. 56, have chosen *Thamnopora madreporacea*, which is *Alveolites cervicornis* de Blainville, 1830, p. 370.

REMARKS. Steininger appears to have founded *T. madreporacea* and *T. milleporacea* on his own material, but he compares them with Goldfuss's figured specimens. He compares *T. madreporacea* with *Calamopora polymorpha* var. δ Goldfuss, 1829, pl. xxvii, fig. 5, and doubtfully identifies it with *C. polymorpha* var. γ Goldfuss, 1829, pl. xxvii, fig. 4a. In 1849, p. 12, he makes it clear that he intends the original of Goldfuss's fig. 4a to represent the species. For good figures of Goldfuss's types, see Lecompte, 1936, pl. ii, figs. 3, 3a–e, and pl. x, figs. 1, 1a, b. See also *Pachypora* Lindström, which we consider synonymous with *Thamnopora*.

THECIA Edwards & Haime, 1849[2], p. 263.

GENOHOLOTYPE (by monotypy):—*Porites expatiatus* Lonsdale, 1839, p. 687, pl. xv, figs. 3, 3a. Silurian, Middle Ludlow: Aymestry, Herefordshire; Wenlock Limestone: various localities in Shropshire, Gloucestershire, and Herefordshire, England=*Agaricia swinderniana* Goldfuss, 1829, p. 109, pl. xxxviii, figs. 3a, b. Drift [ex Silurian]: Groningen, Holland (probably derived from Sweden).

REMARKS. See *Angopora* Jones.

THECOSTEGITES Edwards & Haime, 1849[2], p. 261.

GENOHOLOTYPE (by monotypy):—*Harmodites bouchardi* Michelin, 1846, p. 185, pl. xlviii, figs. 3a, b [non fig. 10 as stated in the text]. Upper Devonian, Frasnian: Ferques, near Boulogne, France.

THYSANOPHYLLUM Nicholson & Thomson, 1876[2], p. 150.

GENOLECTOTYPE (see Gregory, 1917, pp. 222, 238):—*T. orientale* Nicholson & Thomson, 1876[2], p. 150 (no description or figure: described and figured by Thomson, 1880, p. 257, pl. iii, figs. 11, 11a, 14, 14a, text-fig. 4 on p. 255). Lower Carboniferous, Viséan: Aberlady Bay, Haddingtonshire, Scotland.

TILLOPHYLLUM Vollbrecht MS. in Wedekind, 1923, pp. 31, 35—nomen nudum.

REMARKS. Wedekind refers no species to the genus, which is stated to occur in the Lower Middle Devonian of Üxheim, Eifel district, Germany.

TIMANIA Stuckenberg, 1895, pp. 62, 204.

GENOHOLOTYPE (by monotypy):—*T. schmidti* Stuckenberg, 1895, pp. 62, 205, pl. xv, figs. 4a, b, pl. xvi, fig. 7, pl. xvii, fig. 4. Carboniferous, Ober Kohlenkalk: Timan, Russia.

TIMOROSMILIA Koker, 1924, p. 30.

GENOHOLOTYPE (by monotypy):—*T. radiciformis* (Gerth) Koker, 1924, p. 30, text-fig. 24 on p. 41. Permian: Wesleo, Timor=*Plerophyllum radiciforme* Gerth, 1921, p. 92, pl. cxlvi, figs. 15–18, text-fig. 8 on p. 92. Permian: Basleo and Dorf Apna, Oilmasi, Timor.

TIMORPHYLLUM Gerth, 1921, p. 69.

GENOHOLOTYPE (by monotypy):—*T. wanneri* Gerth, p. 70, pl. cxlv, figs. 8–10, and text-fig. 1 on p. 70. Permian: Basleo, Bitauni, and near Ajermati, Timor.

REMARKS. Gerth also describes two varieties of the genotype, namely, *T. wanneri* var. *variabilis* Gerth, 1921, p. 71, pl. cxlv, figs. 11, 12, and text-figs. 2–4 on pp. 71–72. Permian: Bitauni, Noil Nalien, Soefa and Matauibaki, Timor; and *T. wanneri* var. *ajermatiensis* Gerth, 1921, p. 72. Permian: Ajermati, Timor.

TORTOPHYLLUM Sloss, 1939, p. 54.

GENOHOLOTYPE (by author's original designation):—*Zaphrentis cystica* Winchell, 1866, p. 90. Devonian, Hamilton Series, Middle Traverse Beds: [Gravel Point, Petoskey], Michigan, U.S.A.

REMARKS. See also Sloss, 1939, p. 54, pl. xi, figs. 1–10, text-fig. 1 on p. 55.

TRACHYPORA Edwards & Haime, 1851, pp. 158, 305 (non *Trachypora* Verrill, 1864, p. 53, a hexacoral).

GENOHOLOTYPE (by monotypy):—*T. davidsoni* Edwards & Haime, 1851, p. 305, pl. xvii, figs. 7, 7a. [Upper] Devonian [Frasnian]: Ferques, near Boulogne, France.

REMARKS. See also Nicholson, 1879, pp. 102–110.

TRACHYPSAMMIA Gerth, 1921, p. 113.

GENOHOLOTYPE (by monotypy):—*T. dendroides* Gerth, 1921, p. 116, pl. cxlix, figs. 14–20, pl. cl, fig. 19. Permian: Basleo and Bitauni, Timor.

TRAPEZOPHYLLUM Etheridge, 1899[1], p. 32.

GENOHOLOTYPE (by author's original designation):—*Cyathophyllum elegantulum* Dun, 1898, p. 85, pl. iii, figs. 5, 6. Upper Silurian: Loyola, Victoria, Australia.

REMARKS. See Lang & Smith, 1935[2], p. 559 (footnote).

TREMATOPHYLLUM Wedekind, 1923, pp. 27, 35 (genus caelebs), and 1924, pp. 72, 75.

GENOSYNTYPES (first species referred to the genus—by Wedekind, 1924):—

(1) *T. schulzi* Wedekind, 1924, p. 76, text-fig. 104 on p. 72. Lower Middle Devonian: Niederehe, Eifel district, Germany = *Trematophyllum* n. sp. [sic], Wedekind, 1923, text-fig. 4 on p. 27.

(2) *T. abbreviatum* Wedekind, 1924, p. 76, text-fig. 105 on p. 72. Lower Middle Devonian: Eifel district, Germany, exact locality not mentioned.

(3) *T. simplex* Wedekind, 1924, p. 75. Lower Middle Devonian: Eifel district, Germany, exact locality not mentioned.

GENOLECTOTYPE (here chosen):—*T. schulzi* Wedekind.

REMARKS. Wedekind, 1923, p. 35, gave certain characters of the genus, but he referred no named species to it, although in text-fig. 4 on p. 27 he figured a specimen as "*Trematophyllum* n. sp." This figure he repeated in 1924, text-fig. 104 on p. 72, attaching to it the name *T. schulzi* Wedekind.

TRIPLOPHYLLUM Simpson, 1900, p. 209.

GENOHOLOTYPE (by author's original designation):—*Zaphrentis terebrata* Hall, 1883[1], p. 316, pl. xxiii, fig. 5. Middle Devonian, Corniferous [=Onondaga] Limestone: Falls of the Ohio, U.S.A.

REMARKS. Schindewolf, 1938, p. 452, merges the genus in *Zaphrentoides* Stuckenberg.

TROCHOPHYLLUM Edwards & Haime, 1850, p. lxvii.

GENOHOLOTYPE (by authors' original designation):—*T. verneuili* Edwards & Haime, 1850, p. lxvii, described and figured as *T. verneuilanum* [sic] Edwards & Haime, 1851, p. 357, pl. v, figs. 6, 6a. Carboniferous: 7 miles from Louisville, Kentucky, U.S.A.

TRYPLASMA Lonsdale, 1845[1], p. 613, as sub-genus of *Cyathophyllum.*

GENOLECTOTYPE (see Etheridge, 1907, p. 42):—*T. aequabile* Lonsdale, 1845[1], pp. 613, 633, pl. A, figs. 7, 7a. Silurian: River Kakva, east side of northern Ural Mountains, Russia.

REMARKS. The genus embraces a large number of species, simple and compound (some of unusual form), with acanthine septa and no dissepiments. See Etheridge, 1907, and Hill, 1936; also *Acanthodes* Dybowski, *Pholadophyllum* Lindström, *Stortophyllum* Wedekind, and *Tyrrellia* Parks.

TSCHUSSOVSKENIA Dobrolyubova, 1936, pp. 48, 68.

GENOHOLOTYPE (by author's original designation):—*T. captiosa* Dobrolyubova, 1936, pp. 49, 68, pl. xxix, fig. 84, pl. xxx, figs. 85–88. Upper Carboniferous: Verkhne Chussovskiye Gorodki, Western Ural Mountains, U.S.S.R.

*TUBIPORA Linnaeus, 1758, p. 789, a genus of Recent alcyonarian corals.

GENOLECTOTYPE (see Edwards & Haime, 1850, p. lxxvii):—*T. musica* Linnaeus, 1758, p. 789. Recent: Red Sea.

REMARKS. Fischer von Waldheim, 1813, p. 387, implicitly selected *T. musica* as genolectotype, referring to Ellis & Solander's figure of the species, 1786, p. 144, pl. xxvii, and describing it, but not mentioning it by name. Edwards & Haime, 1850, p. lxxvii, formally selected *T. musica* as genolectotype, but refer to Lamarck's description, 1816, p. 209, not to Linnaeus. *Tubipora* and *Tubiporites* have been widely used by early writers for some Palaeozoic corals.

TUMULARIA Robinson, 1916, p. 163.

GENOHOLOTYPE (by monotypy):—*Stylaraea roemeri* Seebach, 1866, p. 306, pl. iv, fig. 2. Ordovician: Wesenberg, Esthonia.

REMARKS. The genus was erected in place of *Stylaraea* Seebach (q.v.), which was pre-occupied.

*TURBINOLIA Lamarck, 1816, p. 230, a genus of Tertiary hexacorals.

GENOLECTOTYPE (see Edwards & Haime, 1848[1], p. 236):—*T. sulcata* Lamarck, 1816, p. 231. [Eocene]: Grignon, Paris Basin, France.

REMARKS. Simple rugose corals were referred to this genus by early workers.

*TURBINOLOPSIS Lamouroux, 1821, p. 84, a genus of Jurassic hexacorals.

GENOHOLOTYPE (by monotypy):—*T. ochracea* Lamouroux, 1821, p. 85, pl. lxxxii, figs. 4–6. [Jurassic, Bathonian]: near Benouville, near Caen, Normandy, France.

REMARKS. The genotype probably comes from the Calcaire à polypiers. The genus has been used for some simple Palaeozoic rugosa.

TYRIA Scheffen, 1933, p. 33—pre-occupied by *Tyria* Huebner, 1819, p. 166, for a lepidopteron.

GENOSYNTYPES:—

(1) *T. inserta* Scheffen, 1933, p. 33, pl. v, figs. 2, 3. Upper Ordovician, zone 5b of Kiär, 1908: Lille Svartö, Tyrifjord, Norway.

(2) *T. emaciata* Scheffen, 1933, p. 33. Same horizon and locality.

GENOLECTOTYPE (here chosen):—*T. inserta* Scheffen.

REMARKS. *T. inserta* very closely resembles *Lindströmia laevis* Nicholson & Etheridge, 1878, p. 90, pl. vi, figs, 4, 4a–e, from the Silurian, Upper Llandovery, greenish mudstones, of Penkill, near Girvan, Ayrshire, Scotland; but the former is a compound form. We would, for the present at any rate, include both these species in *Dalmanophyllum* Lang & Smith, q.v.

TYRRELLIA Parks, 1913, p. 193—pre-occupied by *Tyrrellia* Koenike, 1895, p. 198, for a Recent arachnid.

GENOHOLOTYPE (by monotypy):—*T. severnensis* Parks, 1913, p. 193. Silurian ("approximately of the age of the Guelph limestones of Ontario"): Limestone Rapids, Severn River, Northern Ontario, Canada.

REMARKS. From Parks's description it is possible that *T. severnensis* is a species of *Tryplasma* Lonsdale, but we cannot be certain of this until the type material has been re-investigated in detail.

UFIMIA Stuckenberg, 1895, pp. 27, 187.

GENOHOLOTYPE (by monotypy):—*U. carbonaria* Stuckenberg, 1895, pp. 27, 188, pl. ii, figs. 2, 3, pl. iii, fig. 3. Carboniferous: Ober Kohlenkalk, Ural Mountains, Russia.

REMARKS. Soshkina, 1925, p. 85, says that *Tachyelasma* Grabau, 1922, is a synonym of *Ufimia*, though she retains the former. See also Grabau, 1928, p. 53.

URALINIA Stuckenberg, 1895, pp. 103, 220.

GENOSYNTYPES:—

(1) *U. multiplex* (Ludwig) Stuckenberg, 1895, pp. 104, 221, pl. viii, fig. 4, pl. xi, fig. 8, pl. xx, fig. 5. Upper Carboniferous: Ural Mountains, Russia =*Heliophyllum multiplex* Ludwig, 1862, p. 199, pl. xxii, fig. 2, pl. xxiv, figs. 4, 4a–c.

(2) *U. gracilis* (Ludwig) Stuckenberg, 1895, pp. 105, 221, pl. vi, fig. 4. Upper Carboniferous: Ural Mountains, Russia=*Heliophyllum gracilis* Ludwig, 1862, p. 198, pl. xxii, fig. 4, pl. xxiv, figs. 3, 3a, b [there is no fig. 6 as stated by Stuckenberg].

(3) *U. arietinum* (Ludwig) Stuckenberg, 1895, pp. 106, 221, pl. xx, fig. 3. Upper Carboniferous: Ural Mountains, Russia=*Heliophyllum arietinum* Ludwig, 1862, p. 197, pl. xxii, fig. 5, pl. xxiv, figs. 2, 2a–c=?*H. denticulatum* Ludwig, 1862, p. 196, pl. xxiv, figs. 1, 1a–d.

GENOLECTOTYPE (here chosen):—*H. multiplex* Ludwig.

URALOPHYLLUM Soshkina, 1936[1], p. 44.

GENOHOLOTYPE (by author's original designation):—*U. unicum* Soshkina, 1936[1], pp. 45, 73, text-figs. 43–46 on p. 46. Middle Devonian: River Malui Patok, Northern Ural Mountains, U.S.S.R.

URCEOPORA Eichwald, 1855[2], p. 3, pl. xxvi, fig. 12, pl. xxx, fig. 14, and 1860, p. 422.

GENOSYNTYPES:—

(1) *U. furcata* Eichwald, 1855[2], p. 3, pl. xxx, figs. 14a, b, and 1860, p. 422. [Ordovician], Calcaire à Orthocératites: Nyby, Esthonia.

(2) *U. arbuscula* Eichwald, 1855[2], p. 3, pl. xxvi, fig. 12, and 1860, p. 423. [Silurian], Calcaire à Coraux: Kaménetz Podolskiy, Ukraine.

GENOLECTOTYPE (here chosen):—*U. furcata* Eichwald.

REMARKS. *U. furcata* appears to be a heliolitid. The figure of the other genosyntype is very obscure.

VAUGHANIA Garwood, 1913, p. 564.

GENOHOLOTYPE (by monotypy):—*V. cleistoporoides* Garwood, 1913, pp. 564–567, pl. xlviii, fig. 7, text-figs. 4–6 on p. 565. Lower Carboniferous, Tournaisian, near the base of the *Solenopora* sub-zone (of Garwood): Stone Gill and Artlegarth, Ravenstonedale district, and Shap-Abbey Cliff, Shap district, Westmorland, England.

REMARKS. See *Leptopora* Winchell.

VAUGHANITES Paul, 1937, p. 110, as sub-genus of *Syringopora* Goldfuss—pre-occupied by *Vaughanites* Woodring, 1928, p. 200, for a Miocene gastropod.

GENOHOLOTYPE (by author's original designation):—*Syringopora favositoides* A. Vaughan, 1915, p. 34, pl. v, figs. 2a, b. Lower Carboniferous, Viséan, δ horizon, *sublaevis* limestone: Avesnes district, North-east France, and in Belgium; and "from perhaps a slightly lower level in the Symond's Yat region of the Wye Valley," Gloucestershire, England.

REMARKS. In our opinion it is not desirable to separate *Syringopora favositoides* from the more typical forms of the genus, from which it differs only in the very close proximity of its corallites to one another.

VEPRESIPHYLLUM Etheridge, 1920, p. 61.
GENOHOLOTYPE (by monotypy):—*V. falciforme* Etheridge, 1920, p. 61, pl. xv, figs. 3, 4. Devonian, Caves Limestone: Goodradigbee River, Portion 6, Ph. Goodradigbee, County Buccleugh, New South Wales, Australia.

VERBEEKIA Penecke, 1908, p. 657—pre-occupied by *Verbeekia* Fritsch, 1877, pp. 90, 92, for a Tertiary echinoid, and re-named *Verbeekiella* by Gerth, q.v.
GENOHOLOTYPE (by monotypy):—*V. permica* Penecke, 1908, p. 657, text-figs. 1, 2 on p. 659. Permian: Timor.
REMARKS. See Hill, 1937[2], p. 54.

VERBEEKIELLA Gerth, 1921, p. 84, nom. nov. for *Verbeekia* Penecke.
GENOHOLOTYPE—see *Verbeekia* Penecke.
REMARKS. Gerth attributes the name to Penecke, but we cannot find that he used it.

*VERMIPORA Hall, 1874, p. 109, a Devonian polyzoan.
GENOHOLOTYPE (by monotypy):—*V. serpuloides* Hall, 1874, p. 110. Lower Devonian, Lower Helderberg Group: Schoharie, New York, U.S.A.
REMARKS. For figures of the genotype see Hall, 1883[2], pl. ii, figs. 24–31, and Hall & Simpson, 1887, pl. ii, figs. 24–31. Certain other species have been referred to this polyzoan genus. The zoological position of the Lower Helderbergian *V. robusta* Hall, 1879, p. 144 (see also Hall, 1883[2], pl. ii, figs. 32, 33, and Hall & Simpson, 1887, p. 6, pl. ii, figs. 32, 33), is at present obscure; but the two American Devonian species placed in the genus by Rominger, namely, *V. niagarensis* Rominger, 1876 [? 1877], p. 70, pl. xxiv, fig. 3, lower tier, and *V. fasciculata* Rominger, 1876 [? 1877], p. 70, pl. xxiv, fig. 3, upper tier, are both corals, the former being a favositid. Nicholson, 1879, p. 113, pl. vi, figs. 1, 1a, b, referred a Silurian species from the Isle of Gotland, Sweden, to the genus, namely, *Fletcheria clausus* Lindström, 1866[1], pl. xxxi, fig. 14, but the figures given by Nicholson also indicate a coral.

VERNEUILIA Stuckenberg, 1895, pp. 40, 194—pre-occupied by *Verneuilia* Hall & Clarke, 1894, p. 762, for a Palaeozoic brachiopod.
GENOHOLOTYPE (by monotypy):—*V. urbanowitschi* Stuckenberg, 1895, pp. 41, 194, pl. vi, fig. 6. Carboniferous, Unterkohlenkalk: Ural Mountains, Russia.
REMARKS. We re-name this genus *Sychnoelasma*, q.v.

VESICULARIA Rominger, 1876 [? 1877], p. 135—pre-occupied by *Vesicularia* Thompson, 1830, p. 89, for a polyzoan, and re-named *Cystiphorolites* (q.v.) by Miller, 1889, p. 183.
GENOLECTOTYPE (see Miller, 1889, p. 183):—*V. major* Rominger, 1876 [? 1877], p. 135, pl. xlix, upper row, right-hand figure. Silurian, Niagara Group: Point Detour and Drummond Island, Lake Huron, Michigan, U.S.A.

VESOTABULARIA Yü & Shu, 1929, pp. 50, 106—a nomen nudum.
REMARKS. The only species referred to by Yü & Shu, 1929, pp. 50, 106, namely, *V. tungliangensis* (Upper Carboniferous or Permian, lower part of the Yanghsin Limestone: Northern Hupeh, China), is a nomen nudum.

VETOFISTULA Etheridge, 1917, p. 17.

GENOHOLOTYPE (by author's original designation, p. 20):—*V. mirabilis* Etheridge, 1917, p. 20, pl. iv, figs. 1–4. Middle Devonian: Reid's Gap, near Townsville, Queensland, Australia.

REMARKS. The coral is probably a coenitid.

WAAGENELLA Yabe & Hayasaka as *Wargenella* [sic], 1915, p. 96—pre-occupied by *Waagenella* de Koninck, 1883, explanation of plate xxxviii, a Carboniferous gastropod, and re-named *Waagenophyllum* (q.v.) by Hayasaka, 1924, p. 23.

REMARKS. Hayasaka, in substituting *Waagenophyllum* for *Waagenella*, stated that the name was pre-occupied by *Waagenella* Gemmellaro. But the latter author was using de Koninck's genus—see Gemmellaro, 1889, p. 176.

WAAGENOPHYLLUM Hayasaka, 1924, p. 23—proposed for *Waagenella* Yabe & Hayasaka, which is pre-occupied.

GENOLECTOTYPE (see Grabau, 1931, p. 46):—*Lonsdaleia indica* Waagen & Wentzel, 1886, p. 897, pl. ci, figs. 1–3, pl. cxv, figs. 3, 4. Permian, Middle and Upper Productus Limestone: between Chidru and Musakheyl, at Chittawán, and at several other localities in the Salt Range, India.

WEISSERMELIA nom. nov. for *Ptilophyllum* Smith & Tremberth, 1927, p. 309, non *Ptilophyllum* Guérin-Méneville, 1845, p. 439.

GENOHOLOTYPE (genoholotype of *Ptilophyllum* Smith & Tremberth by authors' original designation):—*Ptilophyllum lindströmi* Smith & Tremberth, 1927, p. 310, pl. vii, figs. 1–7. Silurian, horizon *f* of Lindström (=Ludlow): Östergarn, Isle of Gotland, Sweden.

WENTZELELLA Grabau MS. in Chi, 1931, p. 34 (nomen nudum), and Grabau MS. in Huang, 1932, p. 46.

GENOHOLOTYPE (by author's original designation):—*Lonsdaleia salinaria* Waagen & Wentzel, 1886, p. 895, pl. c, figs. 1, 3, 4. Permian, Middle Productus Limestone: Virgal, Vurcha, and Musakheyl in the Salt Range, India, and Omarkheyl in Trans-Indus.

XENOCYATHELLUS Bassler, 1937, p. 196.

GENOHOLOTYPE (by author's original designation):—*Homalophyllum thedfordensis* Stewart, 1936, p. 879, text-figs. 1–4 on p. 879. Middle Devonian, Hamilton, Olentany Shale: Thedford, Ontario, Canada.

REMARKS. We consider this a synonym of *Rhizophyllum* Lindström.

XIPHELASMA Smith & Lang, 1931, p. 84.

GENOHOLOTYPE (by authors' original designation):—*Tubiporites tubulatus* Schlotheim, 1813, p. 37. Silurian: [Isle of Gotland], Sweden.

REMARKS. See *Storthygophyllum* Weissermel. For the synonymy of *T. tubulatus* and for a description of Schlotheim's type specimen, see Smith & Lang, 1931, pp. 84–85, pl. ii, figs. 1–5.

XYLODES Lang & Smith, 1927 (October), pp. 457, 461—pre-occupied by *Xylodes* Waterhouse, 1876, p. 116, for a Recent coleopteron.

GENOHOLOTYPE (by authors' original designation):—*Madreporites articulatus* Wahlenberg 1821 [1819], p. 97, figured Lang & Smith, 1927, text-figs. 13, 14 on p. 462. [Upper Silurian]: Isle of Gotland, Sweden.

REMARKS. *Madreporites articulatus* is the genolectotype of *Entelophyllum* Wedekind, and *Xylodes* is therefore an absolute synonym of *Entelophyllum.*

XYSTRIPHYLLUM Hill, 1939[2], p. 62.

GENOHOLOTYPE (by author's original designation):—*Cyathophyllum dunstani* Etheridge, 1911, p. 3, pl. A, figs. 1, 2. [Lower] Middle Devonian, Couvinian: [Douglas Creek], Clermont, Queensland, Australia.

YABEELLA Yü, 1931, p. 8 (nomen nudum), and 1933 [1934], p. 75, as sub-genus of *Kueichouphyllum.*

GENOHOLOTYPE (by author's original designation):—*Y. kuangtungensis* Yü, 1933 [1934], p. 76, pl. xii, figs. 1a, b. Lower Carboniferous, Yingteh Limestone: Chü-chiang-hsien, Kuangtung Province, China.

REMARKS. The only species referred to by Yü, 1931, p. 8, namely, *Y. cyathophylloides* Yü (Lower Carboniferous, Fengninian System, *Thysanophyllum* Zone: between Chiussu and Luichai, Tat' anghsien, China), is a nomen nudum: it is not described in Yü, 1933 [1934]. See *Kueichouphyllum* Yü.

YABEIA nom. nov. for *Cylindrophyllum* Yabe & Hayasaka, 1915, p. 90, non *Cylindrophyllum* Simpson, 1900, p. 217.

GENOHOLOTYPE (genoholotype of *Cylindrophyllum* Yabe & Hayasaka by authors' original designation):—*Cylindrophyllum simplex* Yabe & Hayasaka, 1915, p. 90, and 1920, pl. vi, figs. 3a, b. Devonian: neighbourhood of Hung-kuo-chi, Ta-kuan-ting, Chao-tung-fu, Province of Yun-nan, China.

YASSIA Jones, 1930, p. 36.

GENOHOLOTYPE (by author's original designation):—*Spongophyllum enorme* Etheridge, 1913, p. 35, pls. vi, vii. Upper Silurian, Boonoo Ponds Limestone: escarpment north-east of Boonoo Ponds Creek, Hatton's Corner, Yass River, near Yass, New South Wales, Australia.

REMARKS. See also *Crinophyllum* Jones.

YATSENGIA Huang MS. in Chi, 1931, p. 34 (nomen nudum), and Huang, 1932, pp. 46, 56 (see also Yoh & Huang, 1932, pp. 31–32), as sub-genus of *Corwenia.*

GENOHOLOTYPE (by author's original designation):—*Y. asiatica* Huang, 1932, p. 56, pl. v, fig. 1. Permian, basal part of the Chihsia Limestone: near Laochialiang, Lipohsien, Kueichow Province, South China.

YAVORSKIA Fomichev, 1931, pp. 10, 53.

GENOHOLOTYPE (by monotypy):—*Y. barsasensis* Fomichev, 1931, pp. 11, 54, pl. i, fig. 3, text-figs. 2a–e on p. 12. Lower Carboniferous: Taidon River, Kusnetzk basin, U.S.S.R.

YUANOPHYLLUM Yü, 1931, p. 26.

GENOHOLOTYPE (by author's original designation):—*Y. kansuense* Yü, 1931, p. 27, text-figs. 4a, b on p. 27. Lower Carboniferous, Choniukou Formation: Wu-wei-hsien, Kansu Province, and at other localities in China.

REMARKS. See also Yü, 1937, p. 29.

ZAPHRENTHIS Rafinesque & Clifford—see *Zaphrentis* Rafinesque & Clifford.

ZAPHRENTIS as *Zaphrenthis* [sic] Rafinesque & Clifford, 1820, p. 234.

GENOLECTOTYPE (see Miller, 1889, p. 208):—*Z. phrygia* Rafinesque & Clifford, 1820, p. 235. [Devonian]: Falls of the Ohio, Kentucky, U.S.A.=*Caryophyllia cornicula* Lesueur partim, 1821, p. 297.

REMARKS. Contrary to general opinion, *Zaphrentis phrygia* appears to pre-date *Caryophyllia cornicula*—see Lesueur, 1821. Edwards & Haime, 1850, p. lxv, designated *Caninia patula* Michelin as genotype of *Zaphrentis*, but this is invalid, since it is not one of the genosyntypes. See O'Connell, 1914, Stewart, 1938, pp. 18–19, and Schindewolf, 1938, pp. 439–445, for discussions on the genus and for its literature; and also *Zaphrentoides* Stuckenberg.

On etymological grounds we cannot strictly justify emending *Zaphrenthis* to *Zaphrentis*, but surely here is an instance where we may honourably drop an aspirate in deference to custom.

ZAPHRENTOIDES Stuckenberg, 1895, pp. 38, 191.

GENOLECTOTYPE (see Schindewolf, 1938, p. 449):—*Zaphrentis griffithi* Edwards & Haime, 1851, p. 333, and 1852, p. 169, pl. xxxiv, figs. 3, 3a. Lower Carboniferous: Clifton, Bristol, England.

REMARKS. Stuckenberg describes three genosyntypes from Russia, but also mentions *Zaphrentis griffithi* as belonging to this genus, thus making it a fourth genosyntype. See *Amplexi-Zaphrentis* Vaughan.

Schindewolf, 1938, p. 452, would include in *Zaphrentoides* and *Hapsiphyllum* Simpson most of the European Carboniferous corals which are usually referred to *Zaphrentis* Rafinesque & Clifford. See also *Triplophyllum* Simpson.

ZAPHRENTULA Bolkhovitinova, 1915, p. 64.

GENOHOLOTYPE (by monotypy):—*Z. primitiva* Bolkhovitinova, 1915, p. 64, pl. vi, figs. 8–18, text-figs. 1–3 on p. 65. Carboniferous: village of Novlinsk on the River Pahr, Province of Moscow, Russia.

REMARKS. In places Bolkhovitinova has spelt the word as *Zaphrentulla* [sic] and in others as *Zaphrentula*. The latter is the correct spelling.

ZELAEOPHYLLUM as *Zeliaphyllum* [sic] Heritsch, 1936, p. 130.

GENOHOLOTYPE (by author's original designation):—*Z. suessi* Heritsch, 1936, p. 130, pl. xviii, fig. 24, text-fig. 34 on p. 135 (text-fig. pl. iv). Permian, lower *Schwagerina* Limestone: the Ringmauer, particularly in the Hornstone knolls of that limestone, Carnic Alps, Austria.

ZELIAPHYLLUM Heritsch—see *Zelaeophyllum* Heritsch.

ZELOPHYLLUM Wedekind, 1927, pp. 34, 35.

GENOHOLOTYPE (by author's original designation):—*Z. intermedium* Wedekind, 1927, pp. 34, 35, pl. v, figs. 1–3. Silurian, Kodonophyllumstufe, Reef Limestone of Högklint: Högklint, Isle of Gotland, Sweden.

ZONODIGONOPHYLLUM Vollbrecht, 1926, p. 240.

GENOSYNTYPES:—

(1) *Z. primum* Vollbrecht, 1926, p. 241, pl. viii, figs. 1a–h. Lower Middle Devonian, D-Stufe, Nohner-Schichten: Nohn, Eifel district, Germany.
(2) *Z. stabile* Vollbrecht, 1926, p. 242, pl. viii, figs. 2a–d, f–h, pl. xvi. Same horizon: Ahütte, Eifel district, Germany.
(3) *Z. simplex* Vollbrecht, 1926, p. 242, pl. ix, figs. 2a, b, pl. xvi. Same horizon: Nohn, Eifel district, Germany.
(4) *Z. crispum* Vollbrecht, 1926, p. 242, pl. ix, figs. 1a–c. Same horizon and locality.
(5) *Z. bipartitum* Vollbrecht, 1926, p. 242, pl. ix, fig. 4, pl. xvi. Same horizon: Ahütte, Eifel district, Germany.
(6) *Z. intermedium* Vollbrecht, 1926, p. 243, pl. ix, figs. 5a–f, pl. xvi. Same horizon: Nohn, Eifel district, Germany.
(7) *Z. progressum* Vollbrecht, 1926, p. 243, pl. x, figs. 1a–f, pl. xvi. Same horizon and locality.
(8) *Z. flexuosum* Vollbrecht, 1926, p. 245, pl. x, fig. 2. Same horizon: Kirbachtal, near Üxheim, Eifel district, Germany.

GENOLECTOTYPE (here chosen):—*Z. primum* Vollbrecht.

ZONOPHYLLUM Wedekind, 1924, p. 12.

GENOSYNTYPES:—

(1) *Z. primum* Wedekind, 1924, pp. 12, 20, text-figs. 1–4 on p. 13.
(2) *Z. cylindricum* Wedekind, 1924, pp. 12, 20, text-fig. 5 on p. 13.
(3) *Z. duplicatum* Wedekind, 1924, pp. 14, 20, text-figs. 6, 7 on p. 14, and 8 on p. 15.
(4) *Z. zentrale* [sic] Wedekind, 1924, pp. 15, 21, text-figs. 9–16 on p. 16.
(5) *Z. caducum* Wedekind, 1924, pp. 17, 20, text-figs. 17–22 on p. 17.
(6) *Z. rauffi* Wedekind, 1924, pp. 17, 20, text-figs. 23, 24, on p. 18.
(7) *Z. solidum* Wedekind, 1924, pp. 19, 21, text-figs. 25–27 on p. 19.

All from the base of the Middle Devonian, Nohner Horizon, and all from Nohn, Eifel district, Germany, except *Z. rauffi*, which is from the Ahütte reef in the railway-cutting near Ahütte, Eifel district, Germany.

GENOLECTOTYPE (here chosen):—*Z. duplicatum* Wedekind.

IV. GENOTYPES

EXPLANATORY NOTE

The genotypes are arranged in the alphabetical order of the trivial names, all adjectives being entered as if masculine. After each trivial name follow, in order, the genus to which the species was originally referred, its author, then the genus (in small capitals) of which it is the genotype, and the author of that genus. In the case of a genus with genoholotype either by monotypy, by absolute tautonymy, or by author's original designation, that fact is stated by the addition of the words "monotypy," "absolute tautonymy," or "original designation," respectively, in brackets. But where a genolectotype has been chosen, the reference to that selection is given after a colon: if the selection is made in the present volume, the words "*vide antea*" are to be understood to indicate that the choice is made on the page where the genus in question is discussed in Section III, Genera. Certain genera, however, though originally diagnosed and therefore valid, had no species assigned to them at the time, so that the genotype is the first species subsequently referred to the genus. In those cases where only one such species is involved, the words "subsequent monotypy" are added in brackets; but where the later author designated the genotype, this is indicated by the statement "subsequent designation" in brackets. Asterisks denote genera which are not Palaeozoic corals.

Thus:—

archiaci, *Cyathophyllum*, Edwards & Haime—CANINOPHYLLUM Lewis (original designation)

means that *Cyathophyllum archiaci* Edward & Haime is the genoholotype of *Caninophyllum* Lewis by author's original designation;

and:—

battersbyi, *Alveolites*, Edwards & Haime—CALIAPORA Schlüter (monotypy)

means that *Alveolites battersbyi* Edwards & Haime is the genoholotype of *Caliapora* Schlüter by monotypy.

Again:—

buceros, *Clisiophyllum*, Eichwald—GREWINGKIA Dybowski: Sherzer, 1891, p. 284

means that *Clisiophyllum buceros* Eichwald was chosen as genolectotype of *Grewingkia* Dybowski by Sherzer, 1891, p. 284.

And again:—

excentricum, *Nardophyllum*, Borchers MS. in Wedekind—PLAGIOPHYLLUM Wedekind & Vollbrecht: *vide antea*

means that *Nardophyllum excentricum* Borchers MS. in Wedekind is selected in the present volume as genolectotype of *Plagiophyllum* Wedekind & Vollbrecht.

Further:—

anthophyllum, *Madrepora*, Esper (=*cyathus*, *Anthophyllum*, Schweigger)—ANTHOPHYLLUM Schweigger (absolute tautonymy)

means that *Madrepora anthophyllum* Esper (=*Anthophyllum cyathus* Schweigger) is the genoholotype of *Anthophyllum* Schweigger by absolute tautonymy;

and:—

fibratum, *Tetradium*, Safford—TETRADIUM Dana (subsequent designation of Safford)

means that *Tetradium fibratum* Safford was designated as genoholotype of *Tetradium* Dana by Safford, who first referred valid species to Dana's genus;

while:—

donatiana, *Turbinolia*, King (=*profundum*, *Cyathophyllum*, Germar)—CALOPHYLLUM Dana (subsequent monotypy)

means that *Turbinolia donatiana* King (=*Cyathophyllum profundum* Germar) is the genoholotype of *Calophyllum* Dana by monotypy, that species, when it was referred to the genus, being the first and only one assigned to *Calophyllum*, which had previously only been diagnosed.

abyssum, *Craterophyllum*, Tolmachev—CYPELLOPHYLLUM Tolmachev (=*Craterophyllum* Tolmachev) (monotypy).

acanthiseptum, *Lophocarinophyllum*, Grabau—LOPHOCARINOPHYLLUM Grabau (original designation).

acuminatum, *Laccophyllum*, Simpson—LACCOPHYLLUM Simpson (original designation).

acuminata, *Nodulipora*, Lindström—NODULIPORA Lindström (monotypy).

adnetum, *Depasophyllum*, Grabau—DEPASOPHYLLUM Grabau (original designation).

aenigmaticum, *Asteriophyllum*, Porfiriev—ASTERIOPHYLLUM Porfiriev (monotypy).

aequabile, *Tryplasma*, Lonsdale—TRYPLASMA Lonsdale: Etheridge, 1907, p. 42.

agariciformis, *Fungia*, Lamarck (=*fungites*, *Madrepora*, Linnaeus)—*FUNGIA Lamarck: Leuchart, 1841, p. 42.

agassizi, *Anisophyllum*, Edwards & Haime—ANISOPHYLLUM Edwards & Haime (original designation).

aggregatum, *Schoenophyllum*, Simpson—SCHOENOPHYLLUM Simpson (monotypy).

alba, *Latepora*, Rafinesque—LATEPORA Rafinesque (monotypy).

alcicornis, *Millepora*, Linnaeus—*MILLEPORA Linnaeus: Edwards & Haime, 1850, p. lviii.

alternatum, *Heliophrentis*, Grabau—HELIOPHRENTIS Grabau (original designation).

alveolaris, *Billingsia*, de Koninck—BILLINGSIA de Koninck (monotypy).

alveolaris, *Calamopora*, Goldfuss—CALAMOPORA Goldfuss: King, 1850, p. 26.

alveolaris, *Columnaria*, van Cleve, Dana—FAVISTELLA Dana (monotypy).

alveolaris, *Desmidopora*, Nicholson—DESMIDOPORA Nicholson (monotypy).

americanum, *Craspedophyllum*, Dybowski (=*colligatum*, *Heliophyllum*, Billings)—CRASPEDOPHYLLUM Dybowski (subsequent monotypy).

americana, *Lyellia*, Edwards & Haime—LYELLIA Edwards & Haime: Miller, 1889, p. 195.

ananas, *Madrepora*, Linnaeus—see *baltica*, *Acervularia*, Schweigger.

ananas, *Madrepora*, Linnaeus—see *luxurians*, *Floscularia*, Eichwald.
? *ananas*, *Madrepora*, Linnaeus—ARACHNIUM Keyserling: *vide antea*.
angelini, *Gyalophyllum*, Wedekind—GYALOPHYLLUM Wedekind (original designation).
angulosa, *Madrepora*, Esper—*LITHODENDRON Schweigger: Lang & Smith, 1935[2], p. 551.
angustum, *Cyathophyllum*, Lonsdale—SEMAEOPHYLLUM Vollbrecht MS. in Wedekind (original designation).
angusta, *Polycoelia*, Rothpletz—GERTHIA Grabau (original designation).
annulatum, *Docophyllum*, Wedekind—DOCOPHYLLUM Wedekind (original designation).
anthophyllum, *Madrepora*, Esper (=*cyathus*, *Anthophyllum*, Schweigger)—*ANTHOPHYLLUM Schweigger (absolute tautonymy).
anticostiensis, *Calapoecia*, Billings—CALAPOECIA Billings: Lindström, 1883[3], p. 7.
apertum, *Endothecium*, Koker—ENDOTHECIUM Koker: *vide antea*.
aperta, *Reuschia*, Kiär—REUSCHIA Kiär (monotypy).
arachne, *Radiastraea*, Stumm—RADIASTRAEA Stumm (original designation).
arachnoideum, *Nematophyllum*, McCoy—NEMATOPHYLLUM McCoy (=*Petalaxis* Edwards & Haime): Edwards & Haime, 1850, p. lxxi.
aranea, *Astraea*, McCoy—LASMOCYATHUS d'Orbigny (monotypy).
archiaci, *Cyathophyllum*, Edwards & Haime—CANINOPHYLLUM Lewis (original designation).
archiaci, *Diphyphyllum*, Billings—CREPIDOPHYLLUM Nicholson & Thomson: Miller, 1889, p. 180.
armatum, *Pentaphyllum*, de Koninck—PENTAPHYLLUM de Koninck: Hinde, 1890, p. 195 (footnote).
articulatum, *Hedströmophyllum*, Wedekind—HEDSTRÖMOPHYLLUM Wedekind (original designation).
articulatus, *Madreporites*, Wahlenberg—ENTELOPHYLLUM Wedekind: *vide antea*.
articulatus, *Madreporites*, Wahlenberg—XYLODES Lang & Smith (original designation).
artiense, *Plerophyllum*, Soshkina—SOCHKINEOPHYLLUM Grabau (original designation).
arundinaceum, *Diphyphyllum*, Billings—SYNAPTOPHYLLUM Simpson (original designation).
asiatica, *Yatsengia*, Huang—YATSENGIA Huang (original designation).
asper, *Favosites*, d'Orbigny (=*alveolaris*, *Favosites*, Lonsdale non Goldfuss)—PALAEOFAVOSITES Twenhofel (original designation).
astreiformis partim, *Stauria*, Edwards & Haime (=*favosa*, *Madrepora*, Linnaeus)—STAURIA Edwards & Haime (original designation).
astroites, *Madrepora*, Pallas (=*denticulatus*, *Astroites*, Walch)—*ASTROITES Walch (absolute tautonymy).
asymetricum, *Lytvelasma*, Soshkina—LYTVELASMA Soshkina (monotypy).
atbassarica, *Protolonsdaleiastraea*, Gorsky—PROTOLONSDALEIASTRAEA Gorsky (monotypy).
attenuatum, *Elasmophyllum*, Hall—ELASMOPHYLLUM Hall (monotypy).
australis, *Araeopora*, Etheridge & Nicholson—ARAEOPORA Etheridge & Nicholson (monotypy).

breviseptatum, *Eurekaphyllum*, Stumm — EUREKAPHYLLUM Stumm (original designation).
briarti, *Dorlodotia*, Salée—DORLODOTIA Salée (monotypy).
buceros, *Clisiophyllum*, Eichwald—GREWINGKIA Dybowski: Sherzer, 1891, p. 284.
büchelense, *Spongophyllum*, Schlüter — SCHIZOPHYLLUM Wedekind (original designation).

caerulea, *Millepora*, Pallas—*HELIOPORA de Blainville: Edwards & Haime, 1850, p. lviii.
caespitosum partim (restricted Lang & Smith), *Cyathophyllum*, Goldfuss—DISPHYLLUM de Fromentel: Lang & Smith, 1934, p. 80.
caespitosum, *Cyathophyllum*, Goldfuss—see *emsti*, *Schlüteria*, Wedekind.
caespitosum, *Diplophyllum*, Hall—DIPLOPHYLLUM Hall (monotypy).
caespitosum, *Lithodendron*, Goldfuss—see *kunthi*, *Cyathophyllum*, Dames.
caespitosum, *Lithodendron*, Goldfuss (=*caespitosum*, *Phacelophyllum*, Gürich) — PHACELOPHYLLUM Gürich (monotypy).
calamites, *Ceriaster*, Lindström—CERIASTER Lindström (monotypy).
calcariformis, *Zaphrentis*, Hall—HAPSIPHYLLUM Simpson (original designation).
calceoloides partim, *Hallia*, Lindström—HOLOPHRAGMA Lindström (monotypy).
calceoloides partim, *Hallia*, Lindström—see *prismaticum*, *Cystiphyllum*, Lindström.
caliculoides, *Helenterophyllum*, Grabau—HELENTEROPHYLLUM Grabau (original designation).
canadensis, *Axinura*, Castelnau—AXINURA Castelnau (monotypy).
canadensis, *Axinura*, Castelnau—see *floriformis*, *Acrocyathus*, d'Orbigny.
canaliculata, *Campsactis*, Rafinesque & Clifford—CAMPSACTIS Rafinesque & Clifford: *vide antea*.
captiosa, *Tschussovskenia*, Dobrolyubova—TSCHUSSOVSKENIA Dobrolyubova (original designation).
carbonaria, *Astraea*, McCoy (=*regium*, *Cyathophyllum*, Phillips)—PALAEASTRAEA McCoy (monotypy).
carbonaria, *Ufimia*, Stuckenberg—UFIMIA Stuckenberg (monotypy).
carcinnophyllosa, *Protolonsdaleia*, Lissitzin—PROTOLONSDALEIA Lissitzin: *vide antea*.
carinatum, *Lophelasma*, Simpson (=*rectum* partim, *Streptelasma*, Hall)—LOPHELASMA Simpson (original designation).
carnicum, *Geyerophyllum*, Heritsch — GEYEROPHYLLUM Heritsch (original designation).
carterense, *Tetradium*, Bassler—PALAEOALVEOLITES Okulitch (original designation).
catenularia, *Tubipora*, Linnaeus—HALYSITES Fischer von Waldheim (monotypy).
catenularia, *Tubipora*, Linnaeus—see *escharoides*, *Catenipora*, Lamarck.
cavernosum, *Stratiphyllum*, Scheffen—STRATIPHYLLUM Scheffen (original designation).
ceratites partim, *Cyathophyllum*, Goldfuss—see *typus*, *Ceratophyllum*, Gürich.
cervicornis, *Alveolites*, de Blainville—see *madreporacea*, *Thamnopora*, Steininger.
cha, *Tachyelasma*, Grabau—TACHYELASMA Grabau (original designation).
chidlensis, *Labyrinthites*, Lambe—LABYRINTHITES Lambe (monotypy).
cingulata, *Amplexipora*, Ulrich—*AMPLEXIPORA Ulrich (original designation).
clappi, *Chonostegites*, Edwards & Haime—CHONOSTEGITES Edwards & Haime (monotypy).

cornucopiae, *Caninia*, Michelin—CANINIA Michelin (original designation).
coronata, *Acervularia*, Edwards & Haime—PSEUDOACERVULARIA Schlüter: *vide antea*.
corrivatum, *Phragmophyllum*, Scheffen—PHRAGMOPHYLLUM Scheffen (original designation).
craigianum, *Rhodophyllum*, Thomson—RHODOPHYLLUM Thomson: Gregory, 1917, pp. 222, 228.
crassum, *Arthrophyllum*, F. A. Römer—*ARTHROPHYLLUM F. A. Römer (monotypy).
crassa, *Jania*, McCoy—MONILIPORA Nicholson & Etheridge (monotypy).
crateriformis, *Kunthia*, Schlüter—KUNTHIA Schlüter (monotypy).
crateroides, *Mycophyllum*, Etheridge—MYCOPHYLLUM Etheridge (monotypy).
crenulare, *Cyathophyllum*, Phillips (=*floriformis*, *Erismatolithus Madreporites*, Martin)—ACTINOCYATHUS d'Orbigny (monotypy).
cresswelli, *Loyolophyllum*, Chapman—LOYOLOPHYLLUM Chapman (monotypy).
cribraria, *Calostylis*, Lindström (=*denticulatum*, *Clisiophyllum*, Kjerulf)—CALOSTYLIS Lindström (monotypy).
cribriformis, *Columnopora*, Nicholson—COLUMNOPORA Nicholson (monotypy).
cribrosa, *Laceropora*, Eichwald—LACEROPORA Eichwald (monotypy).
crinalis, *Calamopora*, Schlüter—RHAPHIDOPORA Nicholson & Foord (original designation).
crinophilum, *Aspasmophyllum*, C. F. Römer—ASPASMOPHYLLUM C. F. Römer (monotypy).
cuneiformis, *Palaeacis*, Haime in Edwards—PALAEACIS Haime in Edwards (monotypy).
cyathophylloides, *Phaulactis*, Ryder—PHAULACTIS Ryder (original designation).
cyathophylloides, *Plerophyllum*, Gerth—PROSMILIA Koker: *vide antea*.
cyathus, *Anthophyllum*, Schweigger—see *anthophyllum*, *Madrepora*, Esper.
cyathus, *Madrepora*, Ellis & Solander—*CARYOPHYLLIA Lamarck: Broderip, 1828, p. 486.
cyclostoma, *Hydnopora*? [sic], Phillips—MICROCYATHUS Hinde (monotypy).
cylindraceus, *Chaetetes*, Fischer von Waldheim MS. in Eichwald—CHAETETES Fischer von Waldheim MS. in Eichwald: Oakley, 1936, p. 441.
cylindricus, *Acanthodes*, Dybowski—SPINIFERINA Penecke (=*Acanthodes* Dybowski): Sherzer, 1891, p. 278.
cylindricum, *Rhabdophyllum*, Wedekind—RHABDOPHYLLUM Wedekind (original designation).
cylindrica, *Siphonophyllia*, Scouler MS. in McCoy (=*gigantea*, *Caninia*, Michelin)—SIPHONOPHYLLIA Scouler MS. in McCoy (monotypy).
cylindricum, *Zonophyllum*, Wedekind—LEGNOPHYLLUM Wedekind: *vide antea*.
cystica, *Zaphrentis*, Winchell—TORTOPHYLLUM Sloss (original designation).
cystoides, *Romingeria*, Grabau MS. in Greene—PROTOPORA Greene (original designation).

dachsbergi, *Cosmophyllum*, Vollbrecht MS. in Wedekind—COSMOPHYLLUM Vollbrecht: Wedekind, 1925, p. 39.
daedalea, *Somphopora*, Lindström—SOMPHOPORA Lindström (monotypy).
dalmani, *Cyathaxonia*, Edwards & Haime—CENTROTUS Lindström MS. in Thomson & Nicholson (monotypy).
dalmani, *Cyathaxonia*, Edwards & Haime—DALMANOPHYLLUM Lang & Smith (=*Centrotus* Lindström MS. in Thomson & Nicholson) (original designation).

donatiana, *Turbinolia*, King (=*profundum*, *Cyathophyllum*, Germar)—CALOPHYLLUM Dana (subsequent monotypy).
donatiana, *Turbinolia*, King (=*profundum*, *Cyathophyllum*, Germar)—POLYCOELIA King (original designation).
dubiosus, *Schizophorites*, Gerth—SCHIZOPHORITES Gerth (monotypy).
dubius, *Heliolites*, Schmidt—PROHELIOLITES Kiär (monotypy).
duncani, *Phryganophyllum*, de Koninck — PHRYGANOPHYLLUM de Koninck (monotypy).
duni, *Columnopora*? [sic], Etheridge—GEPHUROPORA Etheridge (monotypy).
dunstani, *Cyathophyllum*, Etheridge—XYSTRIPHYLLUM Hill (original designation).
duplicatus, *Erismatolithus Madreporites*, Martin—LONSDALEIA McCoy (original designation).
duplicatum, *Zonophyllum*, Wedekind—ZONOPHYLLUM Wedekind: *vide antea*.
dybowskii, *Fasciculophyllum*, Thomson—FASCICULOPHYLLUM Thomson: Gregory, 1917, pp. 223, 238.

edgewoodensis, *Calvinia*, Savage—CAVELLA Stechow (=*Calvinia* Savage) (original designation).
edmondsi, *Nemistium*, Smith—NEMISTIUM Smith (original designation).
edwardsi, *Spongarium*, Lonsdale—SPONGARIUM Lonsdale (monotypy).
edwardsianum, *Hadrophyllum*, de Koninck—HETERELASMA Grabau (original designation).
effusum, *Conopoterium*, Winchell—CONOPOTERIUM Winchell (monotypy).
elegantissima, *Kazania*, Stuckenberg—KAZANIA Stuckenberg: *vide antea*.
elegantulum, *Cetophyllum*, Wedekind — CETOPHYLLUM Wedekind (original designation).
elegantulum, *Cyathophyllum*, Dun—TRAPEZOPHYLLUM Etheridge (original designation).
elegantulum, *Papiliophyllum*, Stumm—PAPILIOPHYLLUM Stumm (original designation).
elegantula, *Tetrapora*, Yabe & Hayasaka—HAYASAKAIA Lang, Smith & Thomas (=*Tetrapora* Yabe & Hayasaka) (original designation).
ellipticus, *Cyclolites*, Lamarck—*CYCLOLITES Lamarck: Edwards & Haime, 1850, p. xlvi.
elongatum, *Cylindrophyllum*, Simpson—CYLINDROPHYLLUM Simpson (original designation).
emmonsi partim, *Emmonsia*, Hall (=*hemispherica* partim, *Emmonsia*, Edwards & Haime)—EMMONSIA Edwards & Haime: C. F. Römer, 1883, p. 425, and Fenton & Fenton, 1936, pp. 27, 35.
emsti, *Atelophyllum*, Wedekind—ATELOPHYLLUM Wedekind (original designation).
emsti, *Schlüteria*, Wedekind (= *caespitosum*, *Cyathophyllum*, Goldfuss) — SCHLÜTERIA Wedekind (original designation).
endophylloides, *Mictocystis*, Etheridge—MICTOCYSTIS Etheridge (monotypy).
enorme, *Spongophyllum*, Etheridge—YASSIA Jones (=*Crinophyllum* Jones) (original designation).
escharoides, *Catenipora*, Lamarck (=*catenularia*, *Tubipora*, Linnaeus)—CATENIPORA Lamarck: *vide antea*.
estonicus, *Palaeoporites*, Kiär—PALAEOPORITES Kiär (monotypy).

fougti, *Alveolites*, Edwards & Haime—PLANALVEOLITES Lang & Smith (original designation).
frechi, *Hemicystiphyllum*, Wedekind—HEMICYSTIPHYLLUM Wedekind (monotypy).
fungiformis, *Hexaporites*, Leuchtenberg MS. in Eichwald—*HEXAPORITES Pander (subsequent monotypy).
fungites, *Madrepora*, Linnaeus—*FUNGITES Cuvier (absolute tautonymy).
fungites, *Madrepora*, Linnaeus—see *agariciformis*, *Fungia*, Lamarck.
fungites, *Turbinolia*, Fleming—see *prolapsum*, *Clisiophyllum*, McCoy, and *bowerbanki*, *Aulophyllum*, Edwards & Haime.
furcata, *Urceopora*, Eichwald—URCEOPORA Eichwald: *vide antea*.

galaxea, *Madrepora*, Ellis & Solander—*SIDERASTRAEA de Blainville: Edwards & Haime, 1850, p. xli.
geigeri, *Pseudocosmophyllum*, Wedekind & Vollbrecht—PSEUDOCOSMOPHYLLUM Wedekind & Vollbrecht: *vide antea*.
geometrica, *Michelinia*, Edwards & Haime—CLEISTOPORA Nicholson (original designation).
gerolsteinense, *Astrophyllum*, Wedekind—ASTROPHYLLUM Wedekind: *vide antea*.
gigantea, *Caninia*, Michelin—see *cylindrica*, *Siphonophyllia*, Scouler MS. in McCoy.
gigantea, *Caryophyllia*, Lesueur—SIPHONOPHRENTIS O'Connell (original designation).
giganteum, *Echigophyllum*, Yabe & Hayasaka—ECHIGOPHYLLUM Yabe & Hayasaka (monotypy).
glabra, *Polyorophe*, Lindström—POLYOROPHE Lindström (monotypy).
glans, *Hadrophyllum*, White—DIPTEROPHYLLUM C. F. Römer (monotypy).
glevensis, *Mesactis*, Ryder—MESACTIS Ryder (original designation).
goldfussi, *Columnaria*, Nicholson non Billings—see *billingsi*, *Nyctopora*, Nicholson.
goldfussi, *Cyathophyllum*, Edwards & Haime—PLASMOPHYLLUM Dybowski (subsequent monotypy).
goldfussi, *Cyathophyllum*, Edwards & Haime—STEREOPHYLLUM Schlüter (monotypy).
gortanii, *Carniaphyllum*, Heritsch—CARNIAPHYLLUM Heritsch (original designation).
gotlandica, *Calceola*, F. A. Römer—RHIZOPHYLLUM Lindström (monotypy).
gothlandicus, *Favosites*, Lamarck—FAVOSITES Lamarck: Edwards & Haime, 1850, p. lx.
gotlandica, *Microplasma*, Dybowski—MICROPLASMA Dybowski: Wedekind, 1927, p. 64.
grabaui, *Enallophyllum*, Greene—ENALLOPHYLLUM Greene (original designation).
gracile, *Anthophyllum*, Münster—*OMPHALOPHYLLIA Laube (original designation).
gracilis, *Aphyllostylus*, Whiteaves—APHYLLOSTYLUS Whiteaves (monotypy).
gracile, *Astraeophyllum*, Nicholson & Hinde—ASTRAEOPHYLLUM Nicholson & Hinde (monotypy).
gracile, *Bucanophyllum*, Ulrich—BUCANOPHYLLUM Ulrich (monotypy).
gracilis, *Cyathaxonella*, Stuckenberg—CYATHAXONELLA Stuckenberg (monotypy).
gracile, *Heptaphyllum*, Clark—HEPTAPHYLLUM Clark (original designation).
gracile, *Lycocystiphyllum*, Wedekind—LYCOCYSTIPHYLLUM Wedekind: *vide antea*.

holmi, *Holmophyllum*, Wedekind — HOLMOPHYLLUM Wedekind (original designation).
huronensis, *Syringolites*, Hinde—SYRINGOLITES Hinde (monotypy).
huronica, *Dania*, Edward & Haime—DANIA Edwards & Haime (monotypy).
huronica, *Houghtonia*, Rominger—HOUGHTONIA Rominger: Bassler, 1915, p. 154.

ibergense, *Medusaephyllum*, F. A. Römer—MEDUSAEPHYLLUM F. A. Römer (monotypy).
inaequalis, *Battersbyia*, Edwards & Haime—BATTERSBYIA Edwards & Haime (monotypy).
inconferta, *Stylastraea*, Lonsdale—STYLASTRAEA Lonsdale: Miller, 1889, p. 205.
incrustans, *Dictyopora*, Gerth—DICTYOPORA Gerth (monotypy).
incurvata, *Lithostroma*, Rafinesque MS. in Brongniart (=*sulcata*, *Columnaria*, Goldfuss)—LITHOSTROMA Rafinesque MS. in Brongniart (monotypy).
indica, *Lonsdaleia*, Waagen & Wentzel—WAAGENOPHYLLUM Hayasaka (=*Waagenella* Yabe & Hayasaka): Grabau, 1931, p. 46.
infundibularia, *Lamellipora*, Owen—LAMELLIPORA Owen (monotypy).
infundibulifera, *Calamopora*, Goldfuss—ROEMERIA Edwards & Haime (monotypy).
infundibuliformis, *Coscinopora*, Goldfuss—*COSCINOPORA Goldfuss: *vide antea*.
inordinatus, *Porites*, Lonsdale—LONSDALIA d'Orbigny (monotypy).
inserta, *Tyria*, Scheffen—TYRIA Scheffen: *vide antea*.
insignis, *Hallia*, Edwards & Haime — HALLIA Edwards & Haime (original designation).
intermedium, *Stylostrotion*, Chi—STYLOSTROTION Chi (original description).
intermedia, *Sublonsdaleia*, Lissitzin—SUBLONSDALEIA Lissitzin (monotypy).
intermedium, *Zelophyllum*, Wedekind—ZELOPHYLLUM Wedekind (original designation).
involutum, *Dinophyllum*, Lindström (=*hisingeri*, *Clisiophyllum*, Edwards & Haime, q.v.)—DINOPHYLLUM Lindström (monotypy).
involutum, *Dohmophyllum*, Wedekind—DOHMOPHYLLUM Wedekind (monotypy).
irregularis, *Aulohelia*, Gerth—AULOHELIA Gerth: *vide antea*.
iwanowi, *Permia*, Stuckenberg—PERMIA Stuckenberg (monotypy).

jacksoni, *Ceratopora*, Grabau—CERATOPORA Grabau (original designation).
jerofewi, *Pseusozaphrentoides*, Stuckenberg—PSEUDOZAPHRENTOIDES Stuckenberg (monotypy).
johnstoni, *Grabauphyllum*, Foerste—GRABAUPHYLLUM Foerste (monotypy).
junciformis, *Cannipora*, Hall—CANNIPORA Hall (monotypy).
juniperinus, *Coenites*, Eichwald—COENITES Eichwald: Miller, 1897, p. 727.

kahleri, *Carinthiaphyllum*, Heritsch — CARINTHIAPHYLLUM Heritsch (original designation).
kansuense, *Yuanophyllum*, Yü—YUANOPHYLLUM Yü (original designation).
kassariensis, *Cyathophylloides*, Dybowski (=*sulcata*, *Columnaria*, Lonsdale non Goldfuss)—CYATHOPHYLLOIDES Dybowski: Sherzer, 1891, p. 278.
kerpense, *Loepophyllum*, Wedekind—LOEPOPHYLLUM Wedekind (original designation).
keyserlingi, *Clisiophyllum*, McCoy—CLISIOPHYLLUM Dana: Dingwall, 1926, p. 14.

mccoyi, *Neocystiphyllum*, Wedekind—NEOCYSTIPHYLLUM Wedekind (original designation).
macrophthalma, *Paeckelmannopora*, Weissermel—PAECKELMANNOPORA Weissermel (monotypy).
madreporacea, *Thamnopora*, Steininger (=*cervicornis*, *Alveolites*, de Blainville)—THAMNOPORA Steininger (original designation, or Lang & Smith MS. in Hill, 1937[2], p. 56).
magnificum, *Koninckophyllum*, Thomson & Nicholson—KONINCKOPHYLLUM Thomson & Nicholson: Thomson, 1883, p. 419.
major, *Vesicularia*, Rominger—CYSTIPHOROLITES Miller (=*Vesicularia* Rominger): Miller, 1889, p. 183.
mammiferum, *Streptelasma*, Hall—CIONELASMA Simpson (original designation).
manchurica, *Arachnastraea*, Yabe & Hayasaka—ARACHNASTRAEA Yabe & Hayasaka (original designation).
manchurica, *Cystiphora*, Yabe & Hayasaka—CYSTIPHORA Yabe & Hayasaka (original designation).
marginatum, *Cyathophyllum*, Goldfuss—PTERORRHIZA Ehrenberg: *vide antea*.
marginatum, *Lithophyllum*, Wedekind — LITHOPHYLLUM Wedekind (original designation).
masoni, *Nevadaphyllum*, Stumm—NEVADAPHYLLUM Stumm (original designation).
massivum, *Stereophyllum*, Soshkina — STEREOPHYLLUM Soshkina (original designation).
maximum, *Actinocystis*, Schlüter—MOCHLOPHYLLUM Wedekind (monotypy).
megalocystis partim, *Storthygophyllum*, Weissermel—STORTHYGOPHYLLUM Weissermel (monotypy).
megastoma, *Porites*, McCoy—NICHOLSONIA Kiär (monotypy).
michelini, *Pyrgia*, Edwards & Haime—PYRGIA Edwards & Haime: Hill & Smyth, 1938, p. 126.
michelinoidea, *Procteria*, Davis—PROCTERIA Davis: *vide antea*.
microstoma, *Protomichelinia*, Yabe & Hayasaka—PROTOMICHELINIA Yabe & Hayasaka: *vide antea*.
middendorffi, *Donacophyllum*, Dybowski—DONACOPHYLLUM Dybowski: *vide antea*.
milne-edwardsi, *Streptelasma*, Dybowski (=*truncata*, *Madrepora*, Linnaeus)—CODONOPHYLLUM Wedekind (original designation).
minor, *Fistulipora*, McCoy—*FISTULIPORA McCoy: Edwards & Haime, 1850, p. lix.
minor, *Peetzia*, Tolmachev—PEETZIA Tolmachev (monotypy).
minutum, *Meniscophyllum*, Simpson—MENISCOPHYLLUM Simpson (original designation).
mirabilis, *Vetofistula*, Etheridge—VETOFISTULA Etheridge (original designation).
mirum, *Helminthidium*, Lindström—HELMINTHIDIUM Lindström (monotypy).
mirum, *Retiophyllum*, Počta—RETIOPHYLLUM Počta (monotypy).
mitralis, *Bolboporites*, Pander—*BOLBOPORITES Pander: see Bassler, 1915, p. 128.
mitratum, *Cyathophyllum*, Michelin (non *mitratus*, *Hyppurites* [sic], Schlotheim)—see *bouchardi*, *Metriophyllum*, Edwards & Haime.
mitratus partim, *Hyppurites* [sic], Schlotheim—PYCNACTIS Ryder (original designation).
molli, *Phillipsastraea*, Stuckenberg—CYSTIPHORASTRAEA Dobrolyubova (original designation).

organum, *Madrepora*, Linnaeus—SYRINGOPHYLLUM Edwards & Haime (original designation).
orientale, *Thysanophyllum*, Nicholson & Thomson—THYSANOPHYLLUM Nicholson & Thomson: Gregory, 1917, pp. 222, 238.
originata, *Neomphyma*, Soshkina—NEOMPHYMA Soshkina (original designation).
ornatus, *Cosmiolithus*, Lindström—COSMIOLITHUS Lindström: *vide antea*.
ornatum, *Tenuiphyllum*, Soshkina—TENUIPHYLLUM Soshkina (original designation).
orthoseptatum, *Asthenophyllum*, Grubbs—ASTHENOPHYLLUM Grubbs (original designation).
osismorum, *Combophyllum*, Edwards & Haime—COMBOPHYLLUM Edwards & Haime (original designation).

paeckelmanni, *Cystistrotion*, Schindewolf—CYSTISTROTION Schindewolf (original designation).
pagoda, *Ptychophyllum*, Salter—NAOS Lang (original designation).
palinorsum, *Salpingium*, Smyth—SALPINGIUM Smyth (original designation).
papillata, *Lyellia*, Rominger—CAMPTOLITHUS Lindström (monotypy).
parasiticus, *Heliolites*? [sic], Nicholson & Etheridge—PROTOCHISCOLITHUS Kiär (original designation).
parva, *Columnaria*, Billings—BILLINGSARIA Okulitch (original designation).
pauciradialis, *Lithodendron*, McCoy—SIPHODENDRON McCoy: Chi, 1931, p. 26.
paucitabulatum, *Calophyllum*, Schlüter—CYATHOPAEDIUM Schlüter (=*Coelophyllum* C. F. Römer) (monotypy).
peltatum, *Discophyllum*, Hall—DISCOPHYLLUM Hall (monotypy).
penchiensis, *Multithecopora*, Yoh—MULTITHECOPORA Yoh (original designation).
pendulum partim, *Lophophyllum*, Grabau—SINOPHYLLUM Grabau (original designation).
perampla, *Nicholsonia*, Schlüter—NICHOLSONIA Schlüter: *vide antea*.
perfoliatum, *Cyathophyllum*, Goldfuss MS. in Edwards & Haime—CHONOPHYLLUM Edwards & Haime (original designation).
permiana, *Paralleynia*, Soshkina—PARALLEYNIA Soshkina (original designation).
permicum, *Syringophyllum*, Grabau & Yoh in Yoh, 1931—KWANGSIPHYLLUM Grabau & Yoh, 1931 (=*Syringophyllum* Grabau & Yoh in Yoh, 1929) (monotypy).
permica, *Verbeekia*, Penecke — VERBEEKIELLA Gerth (=*Verbeekia* Penecke) (monotypy).
perplexum, *Barrandeophyllum*, Počta—BARRANDEOPHYLLUM Počta (monotypy).
petalliformis, *Porites*, Lonsdale—PLASMOPORA Edwards & Haime (monotypy).
phillipsi, *Sarcinula*, McCoy—ORIONASTRAEA Smith: Smith, 1917, p. 294.
phrygia, *Zaphrentis*, Rafinesque & Clifford (=*cornicula* partim, *Caryophyllia*, Lesueur)—ZAPHRENTIS Rafinesque & Clifford: Miller, 1889, p. 208.
placenta, *Caunopora*, Phillips—CAUNOPORA Phillips: *vide antea*.
planotabulatum, *Sinospongophyllum*, Yoh—SINOSPONGOPHYLLUM Yoh (original designation).
plicatum, *Actinophyllum*, Phillips—ACTINOPHYLLUM Phillips (monotypy).
podolskiensis, *Ivanovia*, Dobrolyubova—IVANOVIA Dobrolyubova (original designation).
porosus, *Stylonites*, Gerth—STYLONITES Gerth (monotypy).

radiata partim, *Petraia*, Münster—see *decussata* partim, *Petraia*, Münster.
radiciforme, *Plerophyllum*, Gerth—TIMOROSMILIA Koker (monotypy).
ramsayi, *Histiophyllum*, Thomson—HISTIOPHYLLUM Thomson: Gregory, 1917, pp. 223, 230.
ramulosa, *Syringopora*, Goldfuss—SYRINGOPORA Goldfuss: Edwards & Haime, 1850, p. lxii.
rectum, *Pexiphyllum*, Walther—PEXIPHYLLUM Walther: *vide antea*.
rectum partim, *Streptelasma*, Hall—see *carinatum*, *Lophelasma*, Simpson.
rectus, *Strombodes*? [sic], Hall (=*rectum* partim, *Streptelasma*, Hall)—STEREOELASMA Simpson (original designation).
rectum, *Tabulophyllum*, Fenton & Fenton—TABULOPHYLLUM Fenton & Fenton (original designation).
regium, *Cyathophyllum*, Phillips—see *carbonaria*, *Astraea*, McCoy.
reidi, *Euryphyllum*, Hill—EURYPHYLLUM Hill (original designation).
repens, *Aulopora*, Edwards & Haime—see *serpens*, *Aulopora*, Goldfuss.
repleta, *Briantia*, Barrois—BRIANTIA Barrois (monotypy).
reticulata, *Dictyopora*, Steininger—DICTYOPORA Steininger (monotypy).
reticulatum, *Sycidium*, Sandberger—SYCIDIUM Sandberger (monotypy).
rhenanum, *Dendrozoum*, Fuchs—DENDROZOUM Fuchs (monotypy).
rhytoides, *Cravenia*, Hudson—CRAVENIA Hudson (original designation).
richardi, *Cyathophora*, Michelin—*CYATHOPHORA Michelin (monotypy).
richteri, *Mesophylloides*, Wedekind—MESOPHYLLOIDES Wedekind: Stumm, 1937, p. 441.
roemeri, *Stylaraea*, Seebach—TUMULARIA Robinson (=*Stylaraea* Seebach) (monotypy).
romingeri, *Coleophyllum*, Hall—COLEOPHYLLUM Hall: Miller, 1889, p. 179.
rossica, *Fischerina*, Stuckenberg—FISCHERINA Stuckenberg (monotypy).
rossica, *Humboldtia*, Stuckenberg—HUMBOLDTIA Stuckenberg (monotypy).
rotiformis, *Aulina*, Smith—AULINA Smith (monotypy).
rotulosa, *Madrepora*, Ellis & Solander—*ASTRAEA Lamarck: Lang & Smith, 1927, p. 453.
rotunda, *Linopora*, Troost—LINOPORA Troost (monotypy).
rouilleri, *Gshelia*, Stuckenberg—GSHELIA Stuckenberg (monotypy).
rozeni, *Mezenia*, Stuckenberg—MEZENIA Stuckenberg (monotypy).
rugosa, *Lonsdaleia*, McCoy—CORWENIA Smith & Ryder (original designation).
rugosum partim, *Cyathophyllum*, Edwards & Haime (=*prisma*, *Prismatophyllum*, Lang & Smith)—PRISMATOPHYLLUM Simpson (original designation).
rugosum, *Palaeophyllum*, Billings—PALAEOPHYLLUM Billings (monotypy).

salinaria, *Lonsdaleia*, Waagen & Wentzel—WENTZELELLA Grabau MS. in Huang (original designation)).
samsugnensis, *Rhysodes*, Smith & Tremberth—CIRCOPHYLLUM Lang & Smith (= *Rhysodes* Smith & Tremberth) (original designation).
sandalinum, *Anomia*, Linnaeus—CALCEOLA Lamarck (monotypy).
satoi, *Nagatophyllum*, Ozawa—NAGATOPHYLLUM Ozawa (monotypy).
schellwieni, *Lophophylloides*, Stuckenberg—LOPHOPHYLLOIDES Stuckenberg (monotypy).
schmidti, *Timania*, Stuckenberg—TIMANIA Stuckenberg (monotypy).

spongiosum, *Stylidium*, Eichwald—STYLIDIUM Eichwald (monotypy).
spongites partim, *Calamopora*, Goldfuss—see *suborbicularis*, *Alveolites*, Lamarck.
spumans, *Squameophyllum*, Smyth—SQUAMEOPHYLLUM Smyth (original designation).
stachei, *Thamnophyllum*, Penecke—THAMNOPHYLLUM Penecke: Lang & Smith, 1935[2], p. 564.
stellaris, *Madrepora*, Linnaeus—STROMBASTRAEA Ehrenberg: *vide antea*.
stellaris, *Madrepora*, Linnaeus—STROMBODES Schweigger: McCoy, 1849, p. 10.
stellata, *Favistella*, Hall—FAVISTELLA Hall (monotypy).
stellimicans, *Pachytheca*, Schlüter—PACHYTHECA Schlüter (monotypy).
stokesi, *Ptychophyllum*, Edwards & Haime—PTYCHOPHYLLUM Edwards & Haime (original designation).
striata, *Diplochone*, Frech—DIPLOCHONE Frech (original designation).
striatum, *Lithostrotion*, Fleming (=*vorticale*, *Madrepora*, Parkinson)—LITHOSTROTION Fleming (standardisation by the International Commission of Zoological Nomenclature).
strictum, *Streptelasma*, Hall—ENTERELASMA Simpson (original designation).
stylifer, *Pseudofavosites*, Gerth—PSEUDOFAVOSITES Gerth (monotypy).
subcaespitosum, *Cyathophyllum*, Chapman—LYRIELASMA Hill (original designation).
subcentricum, *Centrophyllum*, Thomson—CENTROPHYLLUM Thomson: Gregory, 1917, pp. 223, 230.
subcylindricum, *Cenophyllum*, Dybowski—CENOPHYLLUM Dybowski (monotypy).
suborbicularis, *Alveolites*, Lamarck (=*spongites* partim, *Calamopora*, Goldfuss)—ALVEOLITES Lamarck: Nicholson & Etheridge, 1877, p. 356.
suessi, *Zelaeophyllum*, Heritsch—ZELAEOPHYLLUM Heritsch (original designation).
sulcata, *Caninia*, d'Orbigny—AULACOPHYLLUM Edwards & Haime (original designation).
sulcata, *Columnaria*, Goldfuss—COLUMNARIA Goldfuss: McCoy, 1849, p. 121.
sulcata, *Columnaria*, Goldfuss—see *incurvata*, *Lithostroma*, Rafinesque MS. in Brongniart.
sulcata, *Columnaria*, Lonsdale non Goldfuss—see *kassariensis*, *Cyathophylloides*, Dybowski.
sulcata, *Turbinolia*, Lamarck—*TURBINOLIA Lamarck: Edwards & Haime, 1848[1], p. 236.
sundwigense, *Enteleiophyllum*, Walther—ENTELEIOPHYLLUM Walther: *vide antea*.
swinderniana, *Agaricia*, Goldfuss—see *expatiatus*, *Porites*, Lonsdale, and *hisingeri*, *Laminopora*, Jones.
symmetricum, *Disophyllum*, Tolmachev—DISOPHYLLUM Tolmachev: Tolmachev, 1933, p. 287.

tabernaculum, *Cyathoclisia*, Dingwall—CYATHOCLISIA Dingwall (original designation).
tabulatum, *Lycophyllum*, Wedekind—LYCOPHYLLUM Wedekind (original designation).
tabulatum, *Placophyllum*, Simpson—PLACOPHYLLUM Simpson (original designation).
tachyblastum, *Rhopalelasma*, Hudson—RHOPALELASMA Hudson (original designation).
taidonensis, *Aenigmatophyllum*, Fomichev—AENIGMATOPHYLLUM Fomichev (monotypy).

turbinatum, *Cyathophyllum*, Goldfuss—PERIPAEDIUM Ehrenberg: *vide antea.*
turbinatum, *Polydiselasma*, Hall—POLYDISELASMA Hall (monotypy).
turbinata, *Turbinolia*, Hisinger (=*conulus*, *Zaphrentis*? [sic], Lindström)—RHEGMATOPHYLLUM Wedekind: Soshkina, 1937, p. 85.
turgidum, *Platyaxum*, Davis—PLATYAXUM Davis: *vide antea.*
turiensis, *Tabularia*, Soshkina—TABULARIA Soshkina (original designation).
tushanensis, *Kueichowpora*, Chi—KUEICHOWPORA Chi (original designation).
typicalis, *Schistotoechelasma*, Stewart—SCHISTOTOECHELASMA Stewart (original designation).
typicus, *Cystistylus*, Whitfield—CYSTISTYLUS Whitfield (original designation).
typus, *Arcophyllum*, Markov—ARCOPHYLLUM Markov (original designation).
typa, *Auloporella*, Grubbs—AULOPORELLA Grubbs (original designation).
typus, *Ceratophyllum* Gürich (=*ceratites* partim, *Cyathophyllum*, Goldfuss)—CERATOPHYLLUM Gürich (original designation).
typa, *Leptopora*, Winchell—LEPTOPORA Winchell (original designation).
typa, *Lichenaria*, Winchell & Schuchert—LICHENARIA Winchell & Schuchert (original designation).

ultimum, *Neostringophyllum*, Wedekind—NEOSTRINGOPHYLLUM Wedekind (original designation).
umbellifera, *Aulopora*, Billings—ROMINGERIA Nicholson (=*Quenstedtia* Rominger): Nicholson, 1879, p. 115.
undata, *Madrepora*, Ellis & Solander—*AGARICIA Lamarck: Edwards & Haime, 1850, p. xlix.
undulatum, *Dictyostroma*, Nicholson—DICTYOSTROMA Nicholson (original designation).
ungerni, *Lophoseris*, Eichwald—COCCOSERIS Eichwald: *vide antea.*
ungula, *Zaphrentis*, Rominger—HOMALOPHYLLUM Simpson (original designation).
unicum, *Lithostrotionella*, Yabe & Hayasaka—LITHOSTROTIONELLA Yabe & Hayasaka (monotypy).
unicum, *Uralophyllum*, Soshkina—URALOPHYLLUM Soshkina (original designation).
urbanowitschi, *Verneuilia*, Stuckenberg—SYCHNOELASMA Lang, Smith & Thomas (=*Verneuilia* Stuckenberg) (monotypy).

variabilis, *Heterocoenites*, Gerth—HETEROCOENITES Gerth: *vide antea.*
variabile, *Neospongophyllum*, Wedekind—NEOSPONGOPHYLLUM Wedekind: Wedekind, 1925, p. 52.
varians, *Caenophyllum*, Clark—CAENOPHYLLUM Clark (original designation).
venukoffi, *Stylophyllum*, Tolmachev—STELECHOPHYLLUM Tolmachev (=*Stylophyllum* Tolmachev): Tolmachev, 1933, p. 287.
venustum, *Astrocerium*, Hall—ASTROCERIUM Hall: Miller, 1889, p. 172.
verneuilanum, *Baryphyllum*, Edwards & Haime—BARYPHYLLUM Edwards & Haime (original designation).
verneuili, *Chonaxis*, Edwards & Haime—CHONAXIS Edwards & Haime (monotypy).
verneuili, *Phillipsastraea*, Edwards & Haime—BILLINGSASTRAEA Grabau (monotypy).
verneuili, *Trochophyllum*, Edwards & Haime—TROCHOPHYLLUM Edwards & Haime (original designation).

V. LITERATURE

EXPLANATORY NOTE

CERTAIN works bear a date, for example on the title-page, which is not the true date of publication. We include the real date of publication in square brackets after the misleading date. The generic names mentioned in Section III are recorded after the work in which they first appear. Genera which are not Palaeozoic corals are indicated by an asterisk. For the transliteration of the names of Russian authors we have adopted the system used in the British Museum (Natural History) for a long period.

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**Vermipora*.

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[There is some doubt as to the actual date of Hall's work. This is of importance since the question of priority is involved for several species of Hall and of Rominger. Both authors published important works dated 1876. We have made enquiries in America to try to solve the question, but nothing conclusive has been forthcoming. Mr. R. A. Smith, of the Department of Conservation, Lansing, Michigan, U.S.A., tells us (*in litt.*) that the only record that that Department has concerning Rominger's work is the letter of transmittal of his monograph. That is dated 1st July, 1876.

With regard to Hall's work, Dr. R. Ruedemann, of the New York State Museum, has informed us that Hall's Illustrations were submitted on 21st December, 1876, and paid for by warrant "before Sept. 30, 1877," according to the Comptroller's Report in the Law Library. "It was therefore delivered in print," states Ruedemann (*in litt.*) "before that date which was then the end of the fiscal year, but there is no evidence showing the exact date of delivery to the Director of the Museum. As it was not submitted until the

end of 1876, it is safe to say that it was not delivered until near the end of the fiscal year. . . ."

Dr. Carey Croneis, of the University of Chicago, Walker Museum of Paleontology, in a letter to Dr. J. W. Wells, stated that the copy of Hall's work in the Rare Book Room of their library (Catalogue Number fQE 778. H 21) is annotated in Rominger's handwriting. "Some of these notes seem to me to indicate that Rominger's work was either already issued or at least well in the press," though he agrees there is some evidence the other way.

Finally, Dr. J. W. Wells, of the Ohio State University, Columbus, Ohio, has lately informed us that a copy of Hall's work in the Library of that University bears a different title-page from the usual, and that on the next page is a brief note. The title-page bears the date 1876 and the title, "Illustrations of Devonian Fossils: Corals of the Upper Helderberg and Hamilton Groups." The "Note" on the following page reads, "In December, 1876, a volume of Albertype Illustrations of Devonian Fossils of the classes Gasteropoda, Pteropoda, Cephalopoda, Crustacea and Corals was published in an edition of one hundred copies, by order of the Legislature. These copies were principally distributed under the direction of the Secretary of State.

The Corals being less known than the other groups, and the preparation of a volume upon this class of Fossils, and of the Bryozoa of the lower and upper Helderberg, Hamilton and Chemung Groups being now in progress, the author has had a few copies of the plates of corals printed at his personal expense, with a view to their circulation among those who may be interested in this subject." In addition, Dr. Wells tells us in his letter that "in going over the letterpress pages I found several references to Rominger's work with the notation '*ined.*' and I am sure Hall was ahead of Rominger as was his wont in these things."

The evidence seems to be strengthening that Hall's work was published in December, 1876, and before Rominger's work. Thus the latter's was most probably issued in 1877.] [But see also p. 231.]

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HILL, D., 1937[2]. "The Permian Corals of Western Australia," *Journ. Roy. Soc. West. Australia*, XXIII, pp. 43–63, pl. i.

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Cymatelasma.

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Syringolites.

HINDE, G. J., 1883. "Catalogue of the Fossil Sponges in the Geological Department of the British Museum (Natural History). . . .," pp. viii+1–248, pls. i–xxxviii. London.

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Plerophyllum.

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Ludwig described 56 new genera of Palaeozoic corals in this work, namely:—*Acanthochonium*, *Anorygmaphyllum*, *Astroblastocyclus*, *Astroblastodiscus*, *Astroblastothylacus*, *Astrocalamocyathus*, *Astrochartodiscus*, *Astrocyathus*, *Astrocyclus*, *Astrodendrocyathus*, *Astrodiscus*, *Astrolopas*, *Astrophloeocyathus*, *Astrophloeocyclus*, *Astrophloeothylacus*, *Astroplacocyathus*, *Astrothrombocyathus*, *Astrothylacus*, *Cyathothaelaea*, *Cyathodactylia*, *Hexorygmaphyllum*, *Lioblastocyathus*, *Lioblastolopas*, *Liocalamocyathus*, *Liochartocyathus*, *Liocyathus*, *Liodendrocyathus*, *Liodendrolopas*, *Liophloeocyathus*, *Lioplacocyathus*, *Liothrombocyathus*, *Ptychoblastocyathus*, *Ptychocalamocyathus*, *Ptychochartocyathus*, *Ptychochartocyclus*, *Ptychochonium*, *Ptychocyathus*, *Ptychodendrocyathus*, *Ptycholopas*, *Ptychophloeocyathus*, *Ptychophloeolopas*, *Ptychoplacocyathus*, *Ptychothrombocyathus*, *Taenioblastocyathus*, *Taeniocalamocyathus*, *Taeniocalamolopas*, *Taeniochartocyclus*, *Taeniocyathus*, *Taeniodendrocyathus*, *Taeniodendrocyclus*, *Taeniodendrolopas*, *Taeniolopas*, *Taeniophloeolopas*, *Taenioplacocyathus*, *Taeniothrombocyathus*, *Tetraphyllum*.

As Lang & Smith, 1934, have pointed out, most subsequent workers have ignored Ludwig's genera, because of the length of the names, the fanciful and unsound classification he employs, and the unsatisfactory nature of many of his figures. The reinstatement of Ludwig's names would only cause considerable confusion and the reintroduction of many names which workers would still refuse to recognise.

Moreover, Ludwig added to the confusion by the absurd manner in which many of his genera were founded on the same genotypes, or on those of previously established genera. Lang & Smith have, therefore, applied to the International Commission on Zoological Nomenclature, requesting the suspension of the rules by suppressing all Ludwig's generic names. Their intention of acting meanwhile in anticipation of the International Commission's findings against the use of Ludwig's names is followed in the present volume. (See Duncan, 1872, pp. 116–117, and Lang & Smith, 1934.)]

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Acrophyllum, *Centrotus*, *Dibunophyllum*, *Koninckophyllum*.

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Astrophyllum, *Glossophyllum*, *Lecanophyllum* (as *Lekanophyllum*), *Legnophyllum*, *Pseudozonophyllum*, *Rhopalophyllum*, *Trematophyllum*, *Zonophyllum*.

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Cetophyllum (as *Ketophyllum*), *Codonophyllum* (as *Kodonophyllum*), *Cyphophyllum* (as *Kyphophyllum*), *Desmophyllum*, *Docophyllum* (as *Dokophyllum*), *Dybowskia*, *Entelophyllum*, *Gyalophyllum*, *Hedströmophyllum*, *Holmophyllum*, *Kiaerophyllum*, *Lamprophyllum*, *Lycocystiphyllum* (as *Lykocystiphyllum*), *Lycophyllum* (as *Lykophyllum*), *Neocystiphyllum*, *Pilophyllum*, *Pseudomphyma*, *Rhabdophyllum*, *Rhegmatophyllum* (as *Rhegmaphyllum*), *Semaeophyllum* Vollbrecht MS. (as *Semaiophyllum*), *Stortophyllum*, *Zelophyllum*.

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Pseudamplexus (genus caelebs).

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ADDENDUM

Since this Index went to the press, we have seen a copy of Rominger's "Fossil Corals," which is dated 1876 and which is described on the title-page as "Advance copy, unrevised by the author." It differs from the edition usually quoted, in pagination, in some of the figures on the plates, and in some trivial details, and also lacks the index and the explanation of the plates. This is clearly a collection of page-proofs distributed by the author in advance, and accordingly cannot be considered as constituting publication. See Hall, J., 1876 [? 1877], and Rominger, C., 1876 [? 1877].

PRESENTED
31 MAY 1940